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METHODS OF USING SIMULATED MATERIALS IN TEACHING SCHOOL ADMINISTRATION.

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A STUDY TO ASSESS SIMULATION AS A TEACHING TECHNIQUE, AND TO HELP ANSWER A NUMBER OF QUESTIONS CONCERNING ITS USE INVOLVED (1) TRACING THE HISTORICAL DEVELOPMENT AND USE OF SIMULATION TECHNIQUES IN TRAINING SCHOOL ADMINISTRATORS, (2) SURVEYING THE PURPOSES FOR WHICH SIMULATION HAS BEEN USED IN TRAINING SCHOOL ADMINISTRATORS, (3) DETERMINING WHAT MATERIALS AND METHODS PROFESSORS OF EDUCATIONAL ADMINISTRATION HAVE USED WITHIN SIMULATION EXPERIENCES TO ACHIEVE THEIR PURPOSES, (4) ASSESSING CURRENT PURPOSES, METHODS, AND MATERIALS OF SIMULATION, AND (5) RECOMMENDING FURTHER DEVELOPMENT AND USE OF SIMULATION FROM THE FINDINGS OF THE STUDY. PROCEDURES CONSISTED OF LITERATURE REVIEWS, A SURVEY OF INSTITUTIONS USING SIMULATION TECHNIQUES, INTERVIEWS WITH PROFESSORS WHO HAVE USED THE TECHNIQUE, AND QUESTIONNAIRES TO ADMINISTRATORS AND TRAINEES WHO HAVE PARTICIPATED IN SIMULATION EXPERIENCES. RESULTS OF THE STUDY SHOW EXTENSIVE USE OF SIMULATION IN MORE THAN 80 COLLEGES AND UNIVERSITIES. RECOMMENDATIONS FOR IMPROVED USE OF SIMULATION AND FURTHER STUDY ARE PRESENTED. (JC)

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METHODS OF USING SIMULATED MATERIALS IN TEACHING SCHOOL ADMINISTRATION

COOPERATIVE RESEARCH PROJECT NO. S-098

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COLLEGE OF EDUCATION
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CHAPTER I

THE PROBLEM, DEFINITIONS, AND PROCEDURES

Introduction to the Study

Since World War II, school administration as a field of study has been undergoing rapid expansion and change. "If any one statement could be made concerning educational administration at this time, it would be that as a field of study it is undergoing radical change. . . . The mounting interest in the theoretical aspects of educational administration indicates a dissatisfaction with the traditional study of the subject. . . ."[1] The variety of tasks that administrators have been asked to perform and the content of programs to prepare administrators have been expanded.[2] In addition there has been ". . . movement toward the development of an adequate theory of administration. . . ."[3]

Part of the reason for these trends has been the many and various changes and pressures within American society itself, such as the population explosion, the technological revolution, and increased mobility. Within the educational domain, consolidation of school districts, increased enrollments, and increased curricular offerings have been similar changes. Within the profession of educational administration, great impetus came from the formation of the National Conference of Professors of Educational Administration (NCPEA) in 1947 and the Cooperative Program in Educational Administration (CPEA) in 1950,[1] grants for study and research (especially by the Kellogg Foundation and the U.S. Office of Education), and the cooperative development of the University Council on Educational Administration (UCEA), as well as recent surveys of preparation programs by the American Association of School Administrators (AASA).[2]

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[1] Daniel E. Griffiths, Administrative Theory (New York: Appleton-Century-Crofts, Inc., 1959), p. 1.

[2] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook of the American Association of School Administrators (Washington: American Association of School Administrators, 1960), p. 175.

[3] Griffiths, op. cit., p. 21.

A recurring major concern has been the lack of understanding between the theoretically oriented college professor and the "practical" administrator in the field. One outgrowth of their misunderstanding has been the mistrust of theory and research findings by practitioners.[3] Griffiths lists several causes for the mistrust of theory, especially the notion that administrators ". . . are part of a culture which has a strong antitheoretical bias,"[4] but he goes on to state that ". . . theory can provide guidance for the administrator. . . ."[1] He quotes "Dewey's contention that: 'Theory is in the end . . . the most practical of all things. . . .'"[2]

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[1] Russell Gregg, "Administration," Encyclopedia of Educational Research (3rd ed.), A Project of the American Educational Research Association of the NEA (New York: The MacMillan Co., 1960), p. 22.

[2] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook of the American Association of School Administrators (Washington: American Association of School Administrators, 1960), pp. 143-191; and Committee for the Advancement of School Administration, The Professional Preparation of Superintendents of Schools (Washington: American Association of School Administrators, 1964), pp. 14-43.

[3] Daniel E. Griffiths, Administrative Theory (New York: Appleton-Century-Crofts, Inc., 1959), p. 8.

[4] Ibid., p. 13.

Another problem resulting from this lack of understanding has been inadequate programs in the colleges and universities to implement what associations of administrators (as well as many professors of educational administration) feel are essential to the preparation of present day school administrators. For example, AASA was not pleased with what it found in its survey of the training given to superintendents:

> The programs /of preparation/ appear to be bookish to the ultimate. . . . The mediocrity of the program of preparation comes from the sterility of the methods reported. Instruction is classroom bound, administration is talked about rather than observed, felt and in these and other ways actually experienced. Where the student should be "scared" by exposure to the facts of administrative life, he is instead bored by the tame fare of second-hand success stories.[3]

Although the communication has been poor at times, both teachers of future administrators and present school administrators have been in substantial agreement regarding the need to test theory in practice during the training program if theory and research are to be implemented in practice by administrators on the job.[1] Griffiths makes two suggestions to increase the use of theory and research by practitioners: ". . . The administrator should have more contact with theory during his period of preparation. . . ."[2] and professors of educational administration should ". . . use research in their teaching. . . . Possibly, if our graduate schools were models in the use of research, those in the public schools would get the idea."[3]

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[1] Daniel E. Griffiths, Administrative Theory (New York: Appleton-Century-Crofts, Inc., 1959), p. 25.

[2] Ibid., p. 10.

[3] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook of the American Association of School Administrators (Washington: American Association of School Administrators, 1960), pp. 83-84.

Programs in school administration have tried to combine theory and research with practical application for many years. Among the techniques used for this purpose have been internships, field work, surveys and case studies. More recently many institutions have experimented in training school administrators through the use of simulation. This technique had already been used in several other fields as one means of applying theory to the solution of actual problems during the training program.

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[1] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook of the American Association of School Administrators (Washington: American Association of School Administrators, 1960), p. 64.

[2] Daniel E. Griffiths, Administrative Theory (New York: Appleton-Century-Crofts, Inc., 1959), p. 10.

[3] Daniel E. Griffiths, Research in Educational Administration (New York: Bureau of Publications, Teachers College, Columbia University, 1959), p. 59.

Definitions of Terms

Simulation

Since the development of this study depends in part upon the precise definition of the term, "simulation," it would be well to consider several different definitions.

According to Webster's New World Dictionary, simulation is "1. the act of simulating; pretense, feigning. 2. false resemblance, as through imitation."[1]

The University Council for Educational Administration defines simulation as "an accurate representation of a real situation."[2]

Guetzkow defines simulation as "an operating representation of the central features of reality."[3]

Bogdanoff states that "Simulation may . . . be defined as: The systematic abstraction and partial duplication of a phenomenon for the purposes of effecting: 1) the transfer of training from a synthetic environment to a real environment; 2) the analysis of a specific phenomenon; or 3) the design of a specific system in terms of certain conditions, behavior, and mechanisms."[4]

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[1] Webster's New World Dictionary of the American Language (New York: The World Publishing Company, 1960), p. 1360.

[2] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 3. (footnote).

[3] Harold Guetzkow, A Use of Simulation in the Study of Inter-Nation Relations (Evanston, Illinois: Northwestwrn University, undated), p. 1. (Mimeographed.)

[4] E. Bogdanoff, et al., Simulation: An Introduction to a New Technology (Santa Monica, California: Systems Development Corporation, 1960), p. 6. (Mimeographed.)

The dictionary definition implies the feigning of reality in order to deceive someone. This connotation is not intended in this study. The University Council for Educational Administration definition limits one to using only those problems and materials which have been reproduced from reality, with changed identities. Although it is a usable definition, if followed rigorously, the accuracy of reproduction and the amount of background data supplied would limit the type and amount of problems and materials available. Guetzkow's definition, on the other hand, focuses upon the operational reality--the reality of the behavior of the participants--implying that the degree of accuracy in background detail is much less important and smaller in amount. Bogdanoff used a broader definition with emphasis upon the learning purposes served by "systematic abstraction and partial duplication."

In prior references, this paper has referred to simulation as a technique involving participants in a variety of activities. This study will utilize this sense of inclusiveness, as in the following definition. Simulation is a teaching arrangement which includes problems, situations, and materials in combination with various teaching methods so as to involve participants actively in realistic problem situations, all directed toward the accomplishment of specific, pre-defined purposes. The use of this definition will not preclude reference to key features of the other definitions given.

Simulated School

All of the interrelated materials, situations (and background data) which in combination present an accurate representation of a school will be referred to as the simulated school.[1]

Simulated Materials

Simulated materials are the interrelated materials (In-Baskets, studies, forms, films, etc.) which are the physical representation of a realistic situation.[2] Some are representations of background information, and others are problems facing personnel in the school district.

Simulated Situations

Those situations in which persons are faced with specific simulated materials designed to elicit certain types of administrative behavior are called simulated situations.[3]

In-Basket

An In-Basket is a set of simulated materials composed of printed items representing incidents and problems which would be faced in the simulated school, presented in the physical forms they would have in a real situation.

Administrative Behavior

All of the various types of action or responses used by an administrator in the performance of the duties of his position represent administrative behavior, including "job demands, situational influences, and processes employed as well as the overt acts of the administrator."[1]

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 3. (footnote).

[2] Ibid.

[3] Ibid.

Purpose

According to the *Dictionary of Education*, a purpose is "an objective or end in view which is projected throughout the aspects of an activity and serves to motivate and direct it by providing a criterion as to the selection, interpretation and evaluation of what is relevant."[2]

Teaching Method

A teaching method is defined as "A rational ordering and balancing, in the light of knowledge and purpose, of the several elements that enter into the educative process. . . ."[3]

Teaching Steps

Teaching steps are defined as "the sequence of activities prescribed for or planned by the teacher to arrive at instructional goals."[4]

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[1] Roald F. Campbell and Russell T. Gregg, (ed.), *Administrative Behavior in Education* (New York: Harper and Brothers, 1957), p. xi.

[2] Carter V. Good, *Dictionary of Education* (New York: McGraw Hill Book Company, Inc., 1959), p. 433.

[3] *Ibid.*, p. 553.

[4] *Ibid.*, p. 554.

Development of Simulation as an Instructional Technique, Other Fields

While simulation may be a new technique in the training of school administrators, it has had a much longer usage in other fields of leadership preparation, notably the Air Firce, Navy, business, and international political relations. Dissatisfaction about training programs in these fields, especially with the problem of relating theory to practice, led to the trial of various "realistic" methods of training in executive responsibilities in order to improve later on-the-job performance.

Greenlaw, in discussing the process of management training by the use of simulated "In-Baskets," states that its major value is that "the In-Basket as a simulation tool goes beyond simple telling and discussion and provides executives with an opportunity to actually perform executive skills in a realistic laboratory situation. As a result a very high degree of ego-involvement is experienced by almost everyone who participates in the problem, and the learning which takes place tends to be fairly enduring."[1]

In the field of political science, Guetzkow, who has been using simulation primarily as a research tool for theory building, feels that ". . . /The students/ were actually making use of their knowledge, as they came face-to-face with the quasi-realities of foreign policy decisions. This opportunity to behave as responsible decision-makers increased their enthusiasm for further understanding. . . ."[1]

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[1] Paul S. Greenlaw, The In-Basket as a Training Instrument (Dayton, Ohio: The Dayton Rubber Company, undated), p. 8. (Mimeographed.)

Bogdanoff and others, working for System Development Corporation, (a division of Rand Corporation), under contract with the United States Air Force to develop new methods of training officers in decision-making, list several advantages of simulation: "Whenever viewing a situation in the raw becomes too cumbersome, time consuming or dangerous . . . /or/ if we wish precise control of a situation and an opportunity to manipulate the parameters . . . simulation may again be utilized. . . . Simulation can effect time compression or expansion . . . /and/ also permits the dramatization of certain principles which must be learned."[2] They go on to state that simulation can be used in "different forms depending upon whether the goal is to provide an orientation, to develop skills, or to increase efficiency."[3]

Thus it appears that, in many fields involving the inter-relationships of people and executive responsibility for decisions, there is increased use of simulation during training, greater realization of the importance of the development of attitudes and effective group behaviors, and recognition of the need for training which involves practice in skill development in realistic problem situations. Most of these other fields are well ahead of school administration in the development of such training programs. In the present study, the author proposes to add to such development in the field of school administration by examining statements of how it has been used, reporting opinions about its success, and making suggestions for its improvement.

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[1] Harold Guetzkow, A Use of Simulation in the Study of Inter-Nation Relations (Evanston, Illinois: Northwestern University, undated), p. 15. (Mimeographed.)

[2] E. Bogdanoff, et al., Simulation: An Introduction to a New Technology (Santa Monica, California: System Development Corporation, 1960), p. 7. (Mimeographed.)

[3] Ibid., p. 9.

The Development of Simulation in School Administration

In 1957-58, a research team, directed by Daniel E. Griffiths, John K. Hemphill, and Norman Fredriksen, developed materials which attempted to realistically represent an actual school and its problems. This research was supported by a grant from the U. S. Office of Education, and by assistance from Teachers College, Columbia University, and Educational Testing Service. These materials were used in a research project intended to ". . . obtain a better understanding of patterns of administrative behavior . . ." and ". . . a better base for selecting principals."[1] The study, "Development of Criteria of Success in School Administration," commonly referred to as the "D. C. S. Study," was conducted during 1958-59 when a nation-wide sample of elementary principals was tested.

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[1] The University Council for Educational Administration, *Simulation in Administrative Training* (Columbus, Ohio: The University Council for Educational Administration, 1960), pp. 3-6.

The enthusiastic responses of the persons who took these tests included comments about the reality of the problems and the amount of learning which they felt they had received from an experience which had been designed to draw data from the participants.[1]

The research team of college professors and graduate students who devised the materials also had felt that the materials possessed instructional potential even while in the formative stage.[2] As a result of these feelings, three separate institutions held separate experimental workshops using the materials to train administrators during the summer and fall of 1959.[3] Since that time there have been numerous workshops, including some conducted with the entire administrative staff of one school system, as well as some use of simulation as part of regular courses. In most cases the participants and staff have been enthusiastic about the learning value of the simulated materials.[4]

However, many questions have been raised about the amounts of simulated material to use, the purposes best achieved via simulation, possible time schedules and format, and the relation to present courses and teaching methods in preparation programs. The present study addresses itself to these and related questions by surveying those who have used simulation to get data on procedures used and opinions regarding the worth of simulation.

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 5.

[2] Ibid. [3] Ibid., p. 6. [4] Ibid., p. 39.

Purposes of the Study

As one step in the process of assessing simulation as a teaching technique, and to help answer the questions raised above, this study was undertaken:

1. to trace the historical development and use of the simulation technique in training school administrators,
2. to survey the purposes for which simulation has been used in the training of school administrators,
3. to determine what materials and methods professors of educational administration have used within simulation experiences to achieve their purposes,
4. to assess current purposes, methods, and materials of simulation, using evidence contained in
    a. opinions of professors who have used simulation,
    b. reactions of participants to their simulation experiences, and
    c. recommended practices in the teaching of school administration, and
5. to make recommendations for further development and use of simulation from an analysis of the findings of the study.

A comparison of the background material presented in the preceding sections with the purpose of this study indicates that there is a need for such an investigation. Although the first experimental workshop was held in 1959, there has not yet been a comprehensive examination of simulation, of its present status or of reactions to its use in training school administrators. (There have been several limited studies which will be referred to in Chapter IV.)

In 1960 the American Association of School Administrators included simulation in a list of promising techniques to upgrade administrative preparation programs.[1] In 1964, in its most recent study of programs for the preparation of superintendents, AASA commented that ". . . simulation materials [are], as yet, less readily available than others. However, considering their cost and the recency of their development, it is encouraging to note how many institutions have made these materials available."[2] The brief reference to the lack of general availability and cost point up two of the problems involved in the use of simulation that need some exploration.

In order to make decisions as to whether simulation is to be used more widely, improved, or perhaps replaced by preferable teaching techniques, it is necessary to know how prevalent has been its use and how satisfactory. This investigation is proposed as a beginning step in this process.

Procedures Used

The basic procedures used in this study have been:

1. Examining the literature in the field of school administration for information about desirable aspects of training programs and about recommended procedures and techniques in

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[1] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook for the American Association of School Administrators (Washington: American Association of School Administrators, 1960), pp. 83-84.

[2] Committee for the Advancement of School Administration, The Professional Preparation of Superintendents of Schools (Washington: American Association of School Administrators, 1964), p.22.

preparing school administrators.

2. Examining literature which deals with the use of simulation in other fields.

3. Examining the literature available on the use of simulation in the training of school administrators.

4. Surveying institutions which prepare school administrators in order to determine which ones have made use of simulation and the names of persons directing simulation experiences.

5. Questioning the professors who have used simulation in order to determine the purposes for which they used simulation, the specific methods and materials used, and their opinions of the strengths and weaknesses of the simulation technique.

6. Using a forced choice follow-up survey of respondents to determine their suggestions for improvements in purposes, methods, materials, and format of use.

7. Interviewing respondents to clarify statements they have made as a result of 5 and 6, above, especially those who have made what appears to be extensive or unique use of the technique.

8. Using an opinionnaire to question a sample of administrators and/or trainees who have participated in simulation experiences to determine their reactions regarding the value of simulation, as contrasted to the reactions of the professors who directed the simulation experiences.

9. Examining samples of available simulated materials used in training school administrators, and those used during simulation experiences in other fields.

10. Analyzing the purposes, materials, methods, and format of simulation experiences reported, as well as assessments of their worth reported by participants and/or professors.

11. Preparing recommendations for the most effective utilization of simulation in teaching school administration and for further study and improvement of the simulation technique.

Limitations of the Study

Although the procedures of this study include questionnaire surveys of the professors using simulation and of a sample of participants in simulation experiences, it is not designed as a rigorous statistical analysis of the effects of simulation upon learners with all extraneous variables controlled. Assessments will be made largely in terms of the opinions of both teachers and students, since this constitutes the major part of the evidence now available. It is hoped that these opinions will offer hypotheses as starting points for more elaborate study in the future.

The study will also contain passing reference to case studies, field problems, the internship and other methods in use in the preparation of school administrators. Such references are solely for the purpose of assisting in the analysis of simulation. No thorough analysis of these other methods is intended.

Organization of the Remainder of the Study

Chapter II. "The Historical Development of Techniques in Teaching School Administration." The development of programs and methods for training school administrators is traced by highlighting the major figures and the predominant theories of administration in each period. Brief descriptions of teaching techniques in current use are followed by a more complete description of the development of simulation. The chapter closes with criteria for assessing teaching techniques in school administration as summarized from the historical overview and from current statements by authorities.

Chapter III. "The Current Status of Simulation in Training School Administrators." Chapter III is a summary of the results of a questionnaire survey of professors of educational administration who have used simulation, with emphasis upon purposes, methods, materials, and formats.

Chapter IV. "An Assessment of the Simulation Technique." An assessment of the simulation technique is made from the opinions of professors and participants, as well as a comparison of the current status reported in Chapter III with the criteria and recommendations for teaching method summarized in Chapter II.

Chapter V. "Effective Use of Simulation." Chapter V is a tabulation and analysis of response by professors who have used simulation to a forced-choice questionnaire on how to use simulation most effectively.

Chapter VI. "Summary, Conclusions, and Recommendations." A summary of the findings of the study leads to the major conclusions which derive from them. Recommendations are then made for further improvement in the use of simulation and for more vigorous research on the effects of using simulation as contrasted to other methods of teaching school administration.

CHAPTER II

THE HISTORICAL DEVELOPMENT OF TECHNIQUES OF TEACHING SCHOOL ADMINISTRATION

The function of the professional administrator is a comparatively recent innovation in the schools, and the history of planned programs of preparation is surprisingly brief. Because it was an innovation, there were no controlling traditions to guide the pioneers in this field, and it was natural to imitate what appeared pertinent from other fields of administration. Since preparation for different specialized administrative positions in schools is even more recent, most references will refer to school administration in general, with emphasis upon the superintendency.

Throughout the history of training school administrators run several consistent threads which give clues to the criteria that have determined the selection of techniques currently used in training programs for administrators. The first of these threads is the fact that notions regarding the ideal administration of schools paralleled developments in other areas of management or administration, often by direct adoption of management and training techniques from these fields. This was especially true of techniques from business administration. Perhaps this was because all of these enterprises have existed in the same society with much the same pressures and problems, and with the same limited knowledge and skills for their solution.[1] It does seem to indicate that one important criteria determining training methods used in school administration programs has been the trend of the times. As Curti stated, regardless of basic philosophical orientation, after 1865

> . . . The educational philosophy of the leaders of our schools, the social implications of their philosophy, and the social opinions to which they came, were, by and large, of such a character as to fit the needs of the status quo. Those on top could appeal almost equally well to the social philosophy of Harris, Booker T. Washington, Bishop Spaulding, the Herbartians, Hall, or James for an authoritative refutation of ideas subversive to the existing economic and social systems.[2]

And big business and industry were the "existing economic and social system" after the Civil War.[3]

Another thread running through the history of teaching school administration is that of combining theory in practice. Professors of educational administration persistently have sought to utilize more scientific or theoretic elements in combination with solving practical problems as part of the training program. The type of practical experience and the kind of theory available has not been the same in each era, but teachers of administrators have from the beginning advocated an interaction between theory and practice during the educational program.

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[1] Raymond E. Callahan and H. Warren Button, "Historical Change of the Role of the Man in the Organization: 1865-1950," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), p. 77.

[2] Merle Curti, The Social Ideas of American Educators (New Jersey: Littlefield, Adams and Co., 1959), p. 461.

[3] Callahan and Button, loc. cit.

It appears that there have been several rather consistent criteria for selecting the elements that comprise training programs for school administrators. Utilizing theory in practice has been one criterion used to evaluate the necessary ingredients of any program. Reading the historical development of training programs for school administrators reveals several similar criteria developed later, such as human relations, which were used to screen the specific ingredients in that era.

Chapter II will trace briefly the history of programs for teaching school administration, with emphasis on the influence of the trend of the times, and on the presence of necessary ingredients, notably theory-in-practice, in these training programs. Descriptions of the activities of leading professors of school administration who were primarily associated with each important trend will illustrate the major beliefs of each era. Not all prominent professors are included--only those whose works appear to exemplify specific movements.

The selection of the movements in administration, and of the professors which appear to typify them, relies heavily upon four sources: an article by Callahan and Button in the Sixty-third Yearbook of the National Society for the Study of Education;[1] Callahan's book, Education and the Cult of Efficiency;[2] an essay by Belisle and Sargent in the NCPEA book, Administrative Behavior in Education;[1] and a doctoral study by Kelley.[2] These are the only recent sources known to deal extensively with these topics.

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[1] Raymond E. Callahan and H. Warren Button, "Historical Change of the Role of the Man in the Organization: 1865-1950," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964).

[2] Raymond E. Callahan, Education and the Cult of Efficiency (Chicago: The University of Chicago Press, 1962).

Not all theories of administration and techniques of teaching school administration used throughout the history of school administration have survived. Chapter II will identify and briefly describe some of the procedures now in current use for training school administrators, among them the topic of this study: simulation. The origins and varied use of simulation will be summarized to show the sources of presently available simulation materials and techniques.

Finally the necessary ingredients found throughout the more durable training techniques will be summarized, along with some current recommendations regarding the training of school administrators, in an attempt to more clearly define criteria for the selection of techniques in teaching school administration.

Later chapters, reporting survey results, may give evidence as to why simulation appears to satisfy recommended criteria for training methods and, hence, will justify its inclusion as one available technique uniquely suited to several needs and purposes within a planned program.

An Overview of the Concepts of Administration

The authors of the primary sources cited above, Belisle, Button, Callahan, Kelley, and Sargent, in their writings have each traced the development of concepts about school administration. In particular, they were each interested in prior or parallel movements in government and business. Unfortunately, they do not agree precisely on the names or dates of various periods. Part of this confusion appears to come from the emphasis by two authors on the period of maximum popularity of a concept and by others upon the entire period of its implementation. Although the latter usage increases the listing of beliefs current at any one time, it does appear that this is what occurs: new concepts spring up and are used before older ones disappear. This study will refer to entire periods of use. The dates appear to be the best available from the sources given.

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[1] Cyril G. Sargent and Eugene L. Belisle, "The Concept of Administration," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg, Sponsored by the National Conference of Professors of Educational Administration (New York: Harper and Brothers, 1957).

[2] Charles Robert Kelley, "Toward an Interpretation of the New Movement of 1915 in Educational Administration," (Unpublished Doctoral thesis, Teachers College, Columbia University, New York, 1961).

Educational administration is a new profession. Prior to 1865 there were few professional educators who administered a school at any level. After 1865, the most prevalent school administrator was the philosopher-educator,[1] whereas in business the most prevalent type of manager was the boss or the political manipulator.[2] About 1900 the forces that produced Scientific Management became influential.[3] Industrial Democracy, as a reaction to the extreme forms of Scientific Management, began in about 1915, but did not reach full-flower until after World War I.[4] Formal Organization theory, the scientific study of the organization itself,[1] had its origins about 1920 but is still an accepted current view.[2] Management as human relations had its early roots in Industrial Democracy, but, based on other concepts, achieved maximum influence after 1930.[3] Systems Theory developed out of military analysis of the organization in World War II and is still an efficient concept for utilization in school administration.[4] Informal power structure had some theoretical origins in small group dynamics and human relations, and became a separate area of inquiry after 1955.[5] These movements are summarized in Table I. With these major periods and schools of administrative thought in mind, it may be possible to more clearly observe how parallel developments in school administration reflected current trends of each era.

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[1] Raymond E. Callaham and H. Warren Button, "Historical Change of the Role of the Man in the Organization: 1865-1950," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), p. 73.

[2] Cyril G. Sargent and Eugene L. Belisle, "The Concept of Administration," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg, Sponsored by the National Conference of Professors of Educational Administration (New York: Harper and Brothers, 1957), p. 92.

[3] Ibid., pp. 94-5. [4] Ibid., p. 100.

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[1] Cyril G. Sargent and Eugene L. Belisle, "The Concept of Administration," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg, Sponsored by the National Conference of Professors of Educational Administration (New York: Harper and Brothers, 1957), p. 103.

[2] W. W. Charters, Jr., "An Approach to the Formal Organization of the School," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), pp. 243 ff.

[3] Sargent and Belisle, op. cit., p. 107.

[4] Richard C. Lonsdale, "Maintaining the Organization in Dynamic Equilibrium," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), pp. 142 ff.

[5] Laurence Iannaccone, "An Approach to the Informal Organization of the School," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), pp. 223 ff.; and Ralph B. Kimbrough, Political Power and Educational Decision-Making (Chicago: Rand McNally and Co., 1964), pp. 4-7.

TABLE I

DOMINANT BUSINESS AND INDUSTRIAL MANAGEMENT THEORIES IN AMERICA

Year[a]	Basic Principle of Management	Role of Manager-Administrator	View of Management-Worker Relationship
Prior to 1900	Political Manipulation and Control	Manipulator or Boss	Balancing Conflicting Interests of Workers and Owner of Business
1900-	Scientific Management	Scientific Planner and Organizer	Developing Maximum Efficiency from Workers
1915-	Industrial Democracy	Persuasive Leader	Securing Consent from Workers
1920-	Formal Organization Theory	Conceptual Organizer	Both Managers and Workers as Cogs in Overall Machine
1930-	Human Relations	Accepted Leader; Communication	Cooperation between Manager and Workers based upon Mutual Understanding of Roles
1945-	Systems Theory and Dynamic Equilibrium	Conceptual, Integrative Leader; Interaction of Formal & Informal Systems	Both Understanding the Place of the Organization in Society at large, and Their Roles in the Organization
1960-	Informal Power Structure	Functional Leader, Effective in Influence	Use of Interpersonal Relations and Influence to Achieve the Goals of the Organization

[a]Year refers to the approximate year of inception.

Origins and History of School Administration as a Formal Field of Study

Although usually less complex, the functions which the present-day school administrator performs have always existed wherever education existed. Originally, the itinerant teacher undoubtedly performed them for himself--organizing his own class, establishing a curriculum, seeking payment for his services and a place in which to teach, deciding which students had successfully finished his course of study, etc. As long as classes were small and teachers independent these methods sufficed. Indeed, there are places in the world today where teachers still perform their own administrative functions.

However, as classes grew too large to be handled in one room by one person, various methods of organization and class management came into existence to fit the required needs. In Colonial and pre-Civil War America, following our English heritage, schools had a headmaster (or principal teacher) in charge of the other "masters" or teachers.[1] The headmaster typically had control over pupil discipline and the traditional course of study, as prescribed by the school governing board.[2] A group of laymen, the school committee (originally elders of the church and later, town selectmen) hired the teachers and headmaster, paid them, furnished the school house and its meager supplies and conducted examinations of pupils to be sure the teachers were doing their jobs.[1] In short, laymen were in charge of the business administration of the schools and the teacher's sole jurisdiction was in matters of pedagogy.[2] Since it was not expected that teachers needed to have special preparation as teachers, there was apparently no need of preparation for either the headmaster or the lay school committee.

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[1] David Austin, Will French and J. Dan Hull, American High School Administration (New York: Holt, Rinehart and Winston, 1962), p. 131.

[2] Ibid.

The Philosopher-Educator

The first city superintendents were appointed in 1837,[3] but the first formal course[4] in School Management was not taught until 1895, at Teachers College.[5] During this gap of sixty years, school administrators were usually appointed from the ranks of the more experienced teachers or were often former clergyman.[6] At times training came during apprenticeship to a superintendent in a large city, with the apprentice moving to his own superintendency when he felt himself trained or when a job became open. In 1865 the National Association of School Superintendents was formed and their annual meetings provided the opportunity to exchange information on the solutions to problems, which was one type of in-service training.[1] In addition, the printed record of their speeches and meetings became the prototype of textbooks in school administration, for little had been written directly about school administration prior to 1900.[2] The first book dealing with problems of educational administration was Payne's Chapters on School Supervision in 1875.[3]

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[1] Emery Stoops and Max L. Rafferty, Jr., Practices and Trends in School Administration (Boston: Ginn and Co., 1961), pp. 8-9.

[2] Russell T. Gregg, "Administration" in Encyclopedia of Educational Research (3rd ed.) Edited by Chester W. Harris (New York: The Macmillan Co., 1960), p. 20.

[3] Calvin Greider, Truman Pierce and William Rosenstengel, Public School Administration (2nd ed.) (New York: Ronald Press, 1961), p. 136.

[4] *Callahan and Button note that William H. Payne taught* ". . . what was claimed to be the first college-level course in school administration. . ." at the University of Michigan after 1879 and prior to 1907 but do not pinpoint the date more accurately. Raymond E. Callahan and H. Warren Button, "Historical Change of the Role of the Man in the Organization: 1865-1950," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), p. 75.

[5] Teachers College, Columbia University, Announcement of Teachers College, 1895-1896 (New York: Teachers College, Columbia University, 1895), pp. 41-42.

[6] American Association of School Administrators, The Centennial Story, Issues No. 1 and 2 (Washington: American Association of School Administrators, 1964).

During this period the prominent school administrators were educators and philosophers, not managers.[4] "The first problems of the superintendent was to discover by philosophical or scholarly inquiry the appropriate purposes of and methods for education."[5] Lack of adequate teacher training made one task of the administrator that of directing many teacher actions. He became a paternalistic dictator.[6]

Increases in urban population and industrial technological advances have made education systems grow both in size and complexity.

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[1] American Association of School Administrators, The Centennial Story, Issues No. 1 and 2 (Washington: American Association of School Administrators, 1964).

[2] Russell T. Gregg, "Administration," Encyclopedia of Educational Research (3rd ed.) Edited by Chester W. Harris (New York: The Macmillan Co., 1960), p. 20.

[3] Raymond E. Callahan and H. Warren Button, "Historical Change of the Role of the Man in the Organization: 1865-1950," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), p. 75.

[4] Ibid. [5] Ibid. [6] Ibid., p. 76.

This growth has been consistently paralleled by a growth in the number of administrators, the degree of authority and responsibility they have exercised, and hence the type and amount of training they have had to have.[1]

Although specialized courses and programs for preparing professional administrators for the schools arrived rather late on the scene, there has been an accelerating expansion since the first course, School Management, was offered at Teachers College in 1895-96 by a Professor Meleney.[2] He was followed by Charles Gilbert in 1897[3] and by Samuel Dutton in 1900.[4] Dutton changed the name of the course to School Administration and added a seminar in research and two practica in school administration.[5] He was co-author of one of the first textbooks on school administration and the teacher of George Strayer and Ellwood Cubberley, two of the greatest influences upon educational administration in America.[6] Dutton was joined by Strayer in 1910, and for the first time there was more than one professor of educational administration at one institution. Teachers College graduates in educational administration began themselves to staff competing departments at other institutions, two of the earliest and most notable being Cubberley at Stanford and Edward Elliot at Wisconsin.[1]

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[1] Russell T. Gregg, "Administration," Encyclopedia of Educational Research (3rd. ed.) Edited by Chester W. Harris (New York: The Macmillan Co., 1960), p. 20.

[2] Teachers College, Columbia University, Announcement of Teachers College, 1895-1896 (New York: Teachers College, Columbia University, 1896), pp. 41-42.

[3] Teachers College, Columbia University, Announcement of Teachers College, 1897-1898 (New York: Teachers College, Columbia University, 1897), p. 23.

[4] Teachers College, Columbia University, Announcement of Teachers College, 1900-1901 (New York: Teachers College, Columbia University, 1900), pp. 20-21.

[5] Ibid.

[6] Raymond E. Callahan, Education and the Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 181.

An interesting sidelight to the development of professional preparation programs is the growth in the sheer number of courses offered. At Teachers College the expansion was from one course in 1896 to four in 1900, eleven in 1910,[2] twenty-two in 1927,[3] and fifty-seven in 1964-65.[4] Paralleling this expansion at Teachers College, the total number of courses in educational administration offered at all institutions training administrators in America was 32 in 1900, 68 in 1910, 127 in 1920, and 286 in 1930.[5] By 1963-64, there were more than 200 institutions offering courses for the preparation of school administrators.[1] Hill characterized this trend as follows: ". . . departments of education attempt ridiculous sub-divisions of indivisables."[2]

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[1] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 180.

[2] Teachers College, Columbia University, Announcement of Teachers College, 1910-1911 (New York: Teachers College, Columbia University, 1910), pp. 49-50.

[3] Teachers College, Columbia University, Announcement of Teachers College, 1927-1928 (New York: Teachers College, Columbia University, 1927), pp. 49-55.

[4] Teachers College, Columbia University, Announcement of Teachers College, 1964-1965 (New York: Teachers College, Columbia University, 1964), pp. 59-65.

[5] A. B. Murphy, "Basic Training Programs for City School Superintendents," (Unpublished Doctoral thesis, University of California, Berkeley, California, 1931) as quoted in National Education Association, Educational Leadership: Eleventh Yearbook of Department of Superintendence (Washington: National Education Association, 1933), p. 296.

Undoubtedly some increase in the number of courses was to be expected as the amount of knowledge about schools and their administration, as well as the total school population of the nation increased, but course fragmentation into technical sub-divisions is frequently the result of other pressures. A similar trend in the general curriculum of the liberal arts college, ". . . to divide and sub-divide areas of instruction, creating narrower, more intensive, and more specialized units. . .,"[3] is attributed by Justman and Mais to pressure from professional schools and specialists to get academic prestige for their own area of study, and to the elective system, with its notion that what students wish to take should be offered. Merely because a given topic is important does not mean it needs to be given in a separate course. Indeed, at the present time there is some movement, and many recommendations to support it, in the opposite direction: toward larger blocks of time covering integrated courses and an overview of the entire administrative field.[4]

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[1] American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington: American Association of School Administrators, 1964), p. 15.

[2] Clyde M. Hill, "Trends in the Teaching of School Administration," School and Society, 38:33, July 8, 1933.

[3] Joseph Justman and Walter Mais, College Teaching: Its Practice and Its Potential (New York: Harper and Brothers, 1956), p. 139.

[4] American Association of School Administrators, Professional Administrators for America's Schools: Thirty-eighth Yearbook (Washington: American Association of School Administrators, National Education Association, 1960), pp. 179-181.

The Scientific Manager

The first evident change in school administration training came in Dutton's course in "School Administration." The basic course description of 1900 had a paragraph added in 1906 stating that ". . . practical work . . . in the investigation and study of . . . financial, social and educational problems . . ." were included as part of the course.[1] Two factors undoubtedly contributed to this change in emphasis: first, the public furor following the articles by Joseph M. Rice in the Forum in 1892 and 1893 reporting his conclusions from visits to 36 cities and talks with 1200 teachers; and, secondly, Edward L. Thorndike's efforts to place the studies of school problems upon a scientific basis utilizing psychological research techniques.[2]

Rice had emphasized the inefficiency of teaching and learning of old fashioned schools,[3] had spoken to the 1897 annual meeting of the NEA's Department of Superintendence on the difference in spelling ability he had found[4] and, in 1903, had founded the Society of Educational Research, the first organization to attempt to systematically gather and analyze data about the schools.[5]

Thorndike, an early worker in psychological measurement, began teaching about his research methods and findings to future school administrators at Teachers College beginning in 1899. Strayer and Cubberley were his pupils in 1903 and were greatly influenced by him. Kelley states,"In these beginning years at Teachers College, marked by a paucity of ideas in teaching school administration, Thorndike's idea of administration as organizing pupils according to their physical and mental development was seminal."[1]

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[1] Teachers College, Columbia University, Announcement of Teachers College, 1906-1907 (New York: Teachers College, Columbia University, 1906), p. 55.

[2] Charles Robert Kelley, "Toward an Interpretation of the New Movement of 1915 in Educational Administration," (Unpublished Doctoral thesis, Teachers College, Columbia University, New York, 1961), pp. 46-47.

[3] Ibid., p. 47. [4] Ibid., p. 48. [5] Ibid., p. 50.

Concurrently, the "Scientific Management" theories of Taylor and his industrial followers began to gain popular acceptance and to influence school personnel. Superintendents of schools, responding to criticisms about the efficiency of the schools in learning, became aware of equal public concern for efficiency in the business management of the schools. Thorndike himself wrote that the need for measurement of educational products ". . . is equally demonstrable whether our concern is with education as a science or education as a business."[2]

Strayer began teaching at Teachers College in 1910 and from the first showed the effects of Thorndike's influence and that of the general tenor of the times, including "Scientific Management."[3] School statistics, school records and the presentation of reports to the public were formally incorporated into a course. Later, Strayer was to develop a series of forms and standards for various aspects of school business management for use in training his students and also for the use of school systems.[1]

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[1] Charles Robert Kelley, "Toward an Interpretation of the New Movement of 1915 in Educational Administration," (Unpublished Doctoral thesis, Teachers College, Columbia University, New York, 1961) p. 55.

[2] Edward L. Thorndike, "The Measurement of Educational Products," The School Review, 20:290, May, 1912.

[3] Kelley, op. cit., p. 184.

Similar to Rice's visits to schools, Dutton's practica had included visits for study and observation in schools both at Teachers College and in the immediate vicinity. Under Strayer, the practica acquired the new dimension of "systematic study of school surveys."[2] The school survey provided a source of knowledge for students as well as furnishing school boards with information intended to assist them in improving their schools and, between 1916 and 1921, was "the essence of the training of school administrators. . . ."[3]

Perhaps the ultimate commitment to the business and industrial version of Scientific Management was evidenced by Frank Spaulding, Superintendent at Newton, Massachusetts, who taught a course at Teachers College with Strayer in 1914-15. Spaulding, in a report to the NEA's Department of Superintendence, made the flat assertion that ". . . the efficiency [of] the Newton secondary schools . . . was measured by the standard of a dollar . . . . we ought to purchase no more Greek instruction at the rate of 5.9

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[1] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 186.

[2] Teachers College, Columbia University, Announcement of Teachers College, 1915-1916 (New York: Teachers College, Columbia University, 1915), p. 40.

[3] Charles Robert Kelley, "Toward an Interpretation of the New Movement of 1915 in Educational Administration," (Unpublished Doctoral thesis, Teachers College, Columbia University, New York, 1961), p. 191.

pupil-recitations for a dollar. The price must go down, or we shall invest in something else."[1] Although Spaulding was criticized at this same meeting by those believing the superintendent must be "first of all a philosopher," it was Spaulding who was invited back to speak again, not his critics.[2]

During this time Cubberley had been teaching at Stanford University, beginning in 1898 and continuing after receiving the doctorate at Teachers College, Columbia University, in 1905. Cubberley had his primary influence as a writer of textbooks used by others in teaching school administration.[3] His 1916 textbook, Public School Administration, was described by George Counts as " . . . the most widely read and influential book on school administration of our generation."[4] Although Cubberley was thoroughly imbued with the business viewpoint and made frequent use of business terminology and illustrations in his books, he had also repeatedly stated that ". . . really efficient schools cost more money, but they would bring greater results. . . ."[5]

There was a slow but constant growth in the number of institutions offering preparation programs for school administrators, staffed primarily by graduates of Teachers College[1] or by successful superintendents.[2] These were given a common footing by the use of Cubberley's textbooks, reports of the results of Strayer's surveys,[3] and by speeches by both men and their followers at the annual conventions of superintendents.

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[1] Frank E. Spaulding, "The Application of the Principles of Scientific Management," National Education Association, Proceedings of the Fifty-first Annual Meeting (Washington: National Education Association, 1913), pp. 264-5.

[2] Raymond E. Callahan and H. Warren Button, "Historical Change of the Role of the Man in the Organization: 1865-1950," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), pp. 81-82.

[3] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 152.

[4] Ibid., p. 96. [5] Ibid., p. 184.

Strayer had stated in 1926,". . . The more certainly the student deals with genuine problems during his period of training, the more likely he will be able to meet with success in the field. Knowledge of the facts of educational administration cannot be substituted for practice in applying these facts to the solution of administrative problems."[4] ". . . Professional Training requires the application of theory to practice. . . ."[5] In implementing these ideas, Teachers College had founded the Institute of Educational Research in 1921, with Strayer as director of field studies.[6] In carrying out this research and training the primary emphasis was still upon business efficiency.

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[1] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 186.

[2] Ibid., p. 188. [3] Ibid., p. 118.

[4] George D. Strayer, "The Problem Method," School and Society, 23:289, March 6, 1926.

[5] George D. Strayer, Addresses and Proceedings of the 66th Annual Meeting of the National Education Association (Washington: The National Education Association, 1928), p. 755.

[6] Charles Robert Kelley, "Toward an Interpretation of the New Movement of 1915 in Educational Administration," (Unpublished Doctoral thesis, Teachers College, Columbia University, New York, 1961), p. 189.

Another important development in training school administrators grew out of the advent of Paul Mort as a professor of school administration at Teachers College in 1924. Dutton and Strayer had involved the student in the field: Dutton emphasized observation and Strayer's pupils gathered statistical data on a survey. But it was Mort whose name became most closely connected with field experience at Teachers College. In his earlier work with Strayer, Mort primarily investigated financial data, especially regarding the support of schools on the state level.[1] Analysis of such data led him to explore the notion of local initiative and fiscal freedom and their effect on educational practice. This, in turn, led to research on other factors of quality education, especially the adaptability principle.[2] Students, working in the Institute of Administrative Research under the direction of Mort, were involved in gathering and analyzing pieces of information relating to quality education. Doing research became part of their training. They were involved in school problems from both the immediate view in the field, and from the broader conceptual level in the seminars, when they put their efforts together. The process produced some notable administrators and professors of administration, and perhaps the first sustained inter-related research in the field of education.[1] Mort stated his own view of administrative training in the 20's and 30's as follows: "Our primary aim had been an effort to get men deeply involved in school problems, to teach them the technique of inquiry, and how to see both sides of all issues."[2] According to Mort, "Strayer believed in teaching men how to do things--the best methods of getting at the facts."[3] The imprint left by Mort upon the training of school administrators and upon research in school administration may well be as deep and important as that of Strayer, his teacher.

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[1] Paul R. Mort, Principles of School Administration (New York: McGraw-Hill Book Company, Inc., 1946), p. 210.

[2] Adam Poruben, "How to Measure Adaptability Expectancy of a Community's School System" (Unpublished Doctoral project, Teachers College, Columbia University, New York, 1943), pp. 4-5, quoted by Donald H. Ross in Administration for Adaptability (New York: Metropolitan School Study Council, 1958), pp. 553-554.

During the 20's and early 30's this emphasis upon training the future administrator by having him solve real problems shifted from (1) his involvement as a data collector under one or more of the professors who conducted school surveys, to (2) working on the problems posed by real data in the classroom, to (3) temporary involvement with a school district's problems in a specific area, and finally to (4) the earliest known trial of a formal internship at Teachers College in 1926.[4] Strayer himself was involved in this shift from mechanical measurement of data to Mort's description of men "deeply involved" in order to "see both sides of all issues." Perhaps Curti's hypothesis that filling the needs of the status quo at a specific point in time is more important than the particular school of thought a leader may advocate is relevant here.[1] While Strayer's name is firmly linked to the school survey and scientific management of schools, Mort, by appearing on the scene fourteen years later is remembered as much for his emphasis on quality education and adaptability[2] as for his statewide surveys of data collection and salary schedules and school finance proposals. The needs of the times apparently made it easier for each person to emphasize certain aspects of his basic beliefs. Mort taught during a transitional era and illustrated the trends of the times in his own changing emphasis on school problems. Mort's earlier writings, such as The Measurement of Educational Need (1924),[3] approached school problems from the Thorndike-Strayer view of scientific measurement, while his later works emphasized factors in quality education and the adaptability principle, including the need for public understanding of schools as part of the measurement process.[4] Indeed, this ability to change as the need and supportive information indicated give credit to Mort's own adaptability.

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[1] Donald H. Ross, Administration for Adaptability (New York: Metropolitan School Study Council, 1958) Appendix A, "A Historical Survey of Studies of Adaptability," pp. 553-581.

[2] Interview with Paul Mort, Professor Emeritus, Teachers College, Columbia University, at Teachers College, Columbia University, New York, on January 11, 1961.

[3] Ibid.

[4] Frank Billings Greer, "The Internship for Prospective Administrators," (Unpublished Doctor of Education Project) quoted in Internship Program in Educational Administration (Washington: American Association of School Administrators, 1964), p. 11.

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[1] Merle Curti, The Sooial Ideas of American Educators (New Jersey: Littlefield, Adams and Co., 1959), p. 461.

[2] Paul R. Mort and Francis G. Cornell, Adaptability of Public School Systems (New York: Bureau of Publications, Teachers College, Columbia University, 1938).

[3] Paul R. Mort, The Measurement of Educational Need (New York: Bureau of Publications, Teachers College, Columbia University, 1924).

[4] Paul R. Mort and William S. Vincent, A Look at Our Schools (New York: Cattell and Company, 1946).

Democratic Leadership

As data of certain types became plentiful and various solutions to problems were tried and measured, it became obvious that merely changing physical factors was not enough to get the desired improvement. Valentine had come to a similar decision in the area of industrial management earlier in 1915. He advocated that managers should be more persuasive, get the consent of their workers in order to improve production.[1] Even if industrial managers conceived of this as one more type of mechanistic manipulation of another factor in production, it also led to involvement of the superior with his workers. As a reaction against scientific management this was, undoubtedly, one of the roots of the "Democratic" administrator of schools concept which began in the late 1920's. Mort wrote his Principles of School Administration, emphasizing such a viewpoint in school administration in 1946 after utilizing the ideas in courses and research since the mid-thirties.[2]

Another major figure in school administration, who in his person symbolizes this change in emphasis in the training of school administrators during the 30's, was Jesse Newlon. Newlon came to Teachers College as a professor of educational administration in 1927 after serving as superintendent of schools at Denver, Colorado, and as president of the NEA in 1924-25. Although regarded by his contemporaries as an able administrator (election as president of the NEA is some evidence of this fact) he was not committed to the concept of scientific business management. In fact, in an address to the NEA annual convention while he was its president, he stated, ". . . many superintendents are more concerned . . . about mere business routine, than they are about the educative process that goes on in the schoolroom. Such individuals would make good bookkeepers."[1]

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[1] Cyril G. Sargent and Eugene L. Belisle, "The Concept of Administration," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg, Sponsored by the National Conference of Professors of Educational Administration (New York: Harper and Brothers, 1957), p. 101.

[2] Paul R. Mort, Principles of School Administration (New York: McGraw-Hill Book Co., 1946), pp. viii-ix.

Although Mort had preceded Newlon in employment at Teachers College, he had not become committed to the ideals of democratic administration as early as Newlon had, perhaps because of Mort's early association as a junior member of the scientific school survey team headed by Strayer and Nickolaus Engelhardt. Thus, whereas Mort represents the transitional phase from scientific management to democratic principles of administration, Newlon early typified a commitment to human relations needed by the administrator. In fact, Newlon's book, Educational Administration as Social Policy,[2] preceded Mort's Principles of School Administration by twelve years.

Further, in 1922, as superintendent of schools in Denver, Newlon had begun a series of system-wide curriculum committees to revise courses of study.[1] Newlon wrote to the board of education, "No program of studies will operate that has not evolved to some extent out of the thinking of the teachers who are to apply it."[2] On this basis Newlon asked for, and received, money to release teachers to work on committees during school hours by employing substitutes and to engage college consultants and other specialists to advise the committees.[3] It was over twenty years before similar activities based on faith in teacher competence and involvement became widespread in other school systems.

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[1] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 203.

[2] Jesse H. Newlon, Educational Administration as Social Policy (New York: Charles Scribner's Sons, 1934).

After publication of his book on administration as social policy, which detailed the extent to which financial-mechanical aspects then dominated school administration, Newlon continued to criticize the state of the profession in writings and speeches as he continued his investigations. Callahan summarized Newlon's findings: ". . . over four-fifths of eight thousand pages (in eighteen textbooks on school administration) are devoted to the purely executive, organizational, and legal aspects of administration. Almost the entire emphasis is on the 'how' of administration. There is virtually no discussion of the 'why', little critical examination of educational and social implications. . . ."[4] A study of what courses superintendents and professors of school administration felt most important in the training of school administrators produced the following results: of eighteen courses listed only four did not deal directly with the "purely executive, organizational and legal aspects," and even such important problems as the function and control of education received a "technical treatment more frequently than otherwise."[1] Newlon stated: ". . . these courses would occupy most of the time of the students. . . ."[2]

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[1] Lawrence A. Cremin, The Transformation of the School (New York: Alfred A. Knapf, 1951), p. 300.

[2] Ibid., p. 299. [3] Ibid., p. 300.

[4] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962). p. 200.

"A study of nearly all of the doctoral studies . . . done in administration between 1910 and 1933 . . ."[3] by Newlon revealed that of 290 titles over half had been done at Teachers College and less than 80 had titles indicating the possibility of some non-technical approach. While granting the possibility that many of the studies "made genuine contributions to education, others dealt with such relatively trivial matters as school plumbing, the school janitor, fire insurance and the cafeteria."[4]

As early as 1925, Newlon had called for administrators to be ". . . students of the social sciences of . . . history, sociology, economics, psychology, political sciences. . . ."[5] When he taught at Teachers College he did reduce the extreme overemphasis upon business management and added notions about social policy and teacher involvement in curriculum revision to his courses in administration. Callahan states that this was with the assistance and influence of George Counts, who was a fellow professor at Teachers College at the same time as

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[1] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 201.

[2] Ibid., p. 202. [3] Ibid., p. 202.

[4] Ibid., p. 202. [5] Ibid., p. 203.

Newlon.[1]

This new emphasis on "social policy" and the involvement of administrators in community affairs was a logical next step after the full involvement of trainees in the actual problems of the school district. But again, the schools trailed the innovations in concepts of business administration, both in speed of trial and in depth of application.

Theories of Formal Organization Structure

Shortly after the gradual shift toward "Democracy" as a prominent theory of management came the study of Formal Organization theory in the 1930's. The major advocates of this emphasis, especially Gulick and Urwick, studied the people and departments of an organization and the formal points of interaction with the same detailed analysis that the time and motion engineers of an earlier day had spent on workers, tools, and their operations on one product.[2] Gulick and Urwick believed that differences in the ways in which an organization was formally structured affected its efficiency and output. Although this theory has since been utilized widely by business, and later by both government and the military, it did not gain much prominence with school administrators or professors until quite recently.[1] Perhaps there was not enough known at that time of the internal organization of schools to attempt to implement these concepts. More likely the cause can be found in the large number of small school districts of simple organization at that time and the comparatively small number of large districts. If this was a reason, it helps to explain renewed interest in these theories at this time of urbanization and enlarged or consolidated school districts.

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[1] Raymond E. Callahan, Education and The Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 248.

[2] Cyril G. Sargent and Eugene L. Belisle, "The Concept of Administration," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell F. Gregg, Sponsored by the National Conference of Professors of Educational Administration (New York: Harper and Brothers, 1957), pp. 103-106.

Human Relations and Group Dynamics

During the Depression the intervention of the government in many sectors of American life resulted in an increase in the number of social workers and psychologists available to the schools. There was the motivation of keeping youth in school longer and out of competition for jobs. In addition, social and economic pressures contributed several varieties of social disease, especially crime and mental illness. People wanted to find the causes and cures or, better yet, ways to prevent both. These pressures in the general body of society coincided with the publication of the findings of several industrial psychologists, notably the Hawthorne plant experiments for Western Electric by Elton Mayo. Termed the "Clinical Concept" by

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[1] W. W. Charters, Jr., "An Approach to the Formal Organization of the School," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), pp. 243 ff.

Belisle and Sargent,[1] but now more often called a human relations approach, the findings emphasized that any experiment with people itself affects those involved in it, influencing the results; and that the involvement of workers in decisions affecting their own working conditions improved employee morale as well as their productivity.[2]

World War II only increased this emphasis social psychology as families were disrupted by industrial and military preparations for war. Both industry and the military employed psychologists, as did the government itself, to help in the war effort: in propaganda, in retraining workers and military leaders, and in keeping the morale of the troops and the public high. Many of these studies, designed to fill immediate and practical needs, resulted in conclusions which emphasized human relations, group dynamics, the informal organization, and communication structure, especially in small groups. Kurt Lewin's studies during this period were especially influential upon the field of management training.[3] Lewin found that membership in a group aided individuals in learning new behaviors which they would resist alone. By consciously utilizing the group in the learning process, learning proceeded more quickly and with more permanence.[1]

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[1] Cyril G. Sargent and Eugene L. Belisle, "The Concept of Administration," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg, Sponsored by the National Conference of Professors of Educational Administration (New York: Harper and Brothers, 1957), pp. 106-110.

[2] Ibid., p. 109.

[3] William C. Trow, "Group Processes," Encyclopedia of Educational Research (3rd ed.) Edited by Chester W. Harris (New York: Macmillan Company, 1960), pp. 603-4.

These two different, but complementary, movements (human relations emphasis in industry and research in the social psychology of groups) began to have an impact upon the schools after World War II. When combined with the newly formed National Conference of Professors of Educational Administration (1947), and armed with Kellogg funds for research and its dissemination, the impact on the field of educational administration was almost as revolutionary as that of Scientific Management had been some forty years earlier. Prominent among the educational adaptors of this human relations view of administration have been Davies, Griffiths, MacIntyre, Sargent, Belisle,[2] and Lipham.[3] Yet, as the AASA reported in 1960,[4] most training programs still emphasize "buildings and budgets." The 1964 AASA report, "The Professional Preparation of Superintendents of Schools," does report a trend in emphasis upon "human relations, leadership and administrative theory,"[1] but major requirements still appear to reflect the same business-organizational side of the task.

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[1] Kurt Lewin, "Group Decision and Social Change," Readings in Social Psychology (3rd ed.) Edited by Eleanor E. MacCoby, Theodore M. Newcomb, and Eugene L. Hartley (New York: Henry Holt and Company, 1958), pp. 201-207.

[2] Walter A. Anderson and Richard C. Lonsdale, "Learning Administrative Behavior," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg (New York: Harper and Brothers, 1959), pp. 438-441.

[3] James M. Lipham, "Leadership and Administration," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1964), pp. 119 ff.

[4] American Association of School Administrators, Professional Administrators for America's Schools: Thirty-eighth Yearbook (Washington: American Association of School Administrators, NEA, 1960), pp. 15, 63-65.

Informal Power Structure

The newer concepts of administration, however, now come primarily from the fields of social psychology, sociology and political science as advocated forty years ago by Newlon, and not from business management. The concept of "Informal Power Structure" is in part an extension of formal organization theory with the insights derived from research into group dynamics, but it has captured a new dimension through the explorations of the political scientists and sociologists. Perhaps the first publication directly linking education to political power structure was Schoolmen and Politics by four political scientists in 1962.[2] This area of interest has mushroomed since then and one of the more recent publications, Political Power and Educational Decision-Making, notes the reason: "The process of decision-making as it should exist (often emphasized in pre-service programs for educators) may bear little resemblance to the process found in local school districts. If the educational leader is unmindful of the nature of decision-making as it is practiced . . . he has little opportunity to use the process . . . in improving education."[3] Kimbrough also comments that "At this writing

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[1] American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington: American Association of School Administrators, 1964), p. 31.

[2] Stephen K. Bailey, et al., Schoolmen and Politics (Syracuse, New York: Syracuse University Press, 1962).

[3] Ralph B. Kimbrough, Political Power and Educational Decision-Making (Chicago: Rand McNally and Company, 1964), p. viii.

(1964) very little empirically oriented research . . . is available . . ."[1] but nevertheless the need for attention to this aspect is important to improved administrative behavior. As yet there exist few guidelines for the introduction of a study of power into the training programs of school administrators, and existing studies and research are primarily oriented towards older concepts of how persons and groups influence each other through formal or institutionalized channels.[2]

Systems Theory

If the study of power structures is an unexplored territory, that of systems theory--the interrelationships and communication of co-existent organizations and groups and their effects on education--is perhaps less implemented in administrative training programs despite its earlier origins. Systems theory has been discussed in some of the technical administrative periodicals for some ten years,[3] and was the topic of major articles by Halpin in 1957,[4] and by Lonsdale in

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[1] Ralph B. Kimbrough, Political Power and Educational Decision-Making (Chicago: Rand McNally and Company, 1964), p. viii.

[2] Ibid., pp. 20-21.

[3] Robert L. Chapman and John L. Kennedy, "The Background and Implications of the Rand Corporation Systems Research Laboratory Studies" Some Theories of Organization, Edited by Albert H. Rubenstein and Chadwick J. Haberstroh (Homewood, Illinois: The Dorsey Press, Inc., and Richard D. Irwin, Inc., 1960), p. 139.

[4] Andrew Halpin, "A Paradigm for Research on Administrative Behavior," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg, Sponsored by the National Conference of Professors of Educational Administration (New York: Harper and Brothers, 1957), pp. 155-199.

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1964,[1] but the AASA 1960 and 1964 surveys of training programs indicate that few institutions appear to have introduced specific course-work with such an emphasis.[2] Perhaps systems theory will be of more value in research on the nature of administrative behavior than in direct implementation within the training process. In any case, this view of administration is still more in the social science province than in education at present.

Current Techniques of Teaching School Administration

This historical overview has shown how trends of the times and developments in other fields resulted in a series of different concepts of the job of the school administrator. Each such concept brought with it allied changes in the training programs, both in course content and teaching procedures. Although the degree of commitment to each central administrative concept has changed, each concept has left its mark in the form of specific courses still offered and teaching techniques still in use.[3] Each of the techniques added a new ingredient to training programs, an ingredient that appears to still be useful today, but only as part of a total training program.[1] A seminar at Syracuse University applied to chief school administrators Combs' statement of one of the major training problems for all educators:

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[1] Richard C. Lonsdale, "Maintaining the Organization in Dynamic Equilibrium," Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: The University of Chicago Press, 1964), pp. 142 ff.

[2] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook (Washington, D.C.: The American Association of School Administrators, 1960), and American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington, D.C.: The American Association of School Administrators, 1964).

[3] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook (Washington, D.C.: The American Association of School Administrators, 1960), pp. 179-187, and Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of The National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), pp. 15-46.

> Educators have succeeded very well in gathering information and in making information available to people. They have done far less well, however, in helping people to make information so much a part of themselves that they behave differently as a result of the educative process. Few of us misbehave because we do not know any better. Most of us have tremendous stores of information that seldom if ever appear in action. A truly effective education cannot be satisfied with helping its students intellectually to "know." "Knowing" must somehow be translated into behaving.[2]

Greenlaw sees similar difficulties in training business administrators in his summary of problems in management training programs:

> The difficulty of practice.
>
> The prevalence of such complex and abstract concepts as the "management cycle" of organizing, planning, executing, coordinating, and controlling.

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of The National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 47.

[2] Walter A. Anderson and Richard C. Lonsdale, "Learning Administrative Behavior," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg (New York: Harper and Brothers, 1957), p. 429, citing Arthur W. Combs et al., "Part I: The Syracuse Studies," Journal of Social Issues (1954), Vol. 10, No. 2, p. 5.

> The widely-felt dilemma created by the conflicting needs of (1) instructors who are forced to break the subject matter down into specialized fragments in order to communicate it, and (2) students who need to experience a totality in order to fully comprehend it.
>
> The problems of overcoming the individual's attitudes and limited self-awareness which tend to block learning and effective application.
>
> The need to develop decision-making skills which will enable managers to produce the best results from the overall point of view of the firm.[1]

These problems may well account for the continued use of teaching methods which were first used in connection with concepts about administration now less prevalent. They all contain one ingredient sought by many professors: the opportunity to test theory in practice. In addition, they all utilize human relationships in training. They encourage direct involvement of students with problems, some in data-gathering and all in decision-making. Each of them--field problems, internships, case studies, block-of-time programs, inter-disciplinary study, the "T-group," role playing, and simulation--will be discussed more fully below.

Field Problems

As described above, institutions have used "field problems" for "testing theory in practice" for many years, although the technique was perhaps distinguished more by the practice of a routine skill in the field than by examining the task in the light of any basic underlying theory. In 1960, in the 251 institutions indicating programs of preparation for school administrators, there were only 22 programs

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[1] Paul S. Greenlaw, Lowell W. Herron, and Richard H. Rawdon, Business Simulation (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1962), p. 35.

(fewer institutions) offering field experiences.[1] In 1962-63 this had increased to approximately 86 programs.[2] This rather loose title apparently covers anything from simple observation in the field (a "field trip" for graduate students) to quite complex and lengthy surveys of a school system.

At the very least, field problems do have one advantage over the college classroom--the students are in a real school situation and can observe, even feel, the wide variety of reactions of teachers, pupils and public to various aspects of the school and its administration, ". . . the total impact of the real thing. . . ."[3] Frequently there is also real data from the field school on one specific problem which is then turned over to one or more students for solution. At its highest level, the field problem is only one step short of the internship as students spend many full days in the schools of a district gathering data: observing, talking to pupils, teachers, and administrators, surveying the community, or examining curricular and financial details. ". . . Meaning must be attached to the . . . pot pourri of raw data . . . by the student."[1] The final reports in such cases represent much time and effort under the guidance of one or more prominent authorities. The student benefits greatly from the interaction of the process as well as from the specific knowledge gained.

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[1] American Association of School Administrators, Professional Administrators for America's Schools, Thirty-eighth Yearbook (Washington, D.C.: The American Association of School Administrators, 1960), p. 198.

[2] American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington, D.C.: The American Association of School Administrators, 1964), p. 18.

[3] Michael P. Thomas, Jr., Strategies of the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 41.

Internships

The internship, borrowed rather directly from medicine, is another attempt to get students involved in assuming responsibility for their behavior while they learn by solving real problems under guidance. Teachers College had experimented briefly with it in 1926, the University of Chicago in 1933, and Omaha University in 1946.[2] In 1947, after the NCPEA's first meeting, five institutions began internship programs. Expansion since that date has been spectacular: 40 universities in 1957 and 110 in 1963.[3] Despite this growth in number of institutions, AASA reported that in 1962-63 there were only 312 students participating in internships from 80 institutions.[4] At the same time there were 9,502 students enrolled as majors in educational administration at all degree levels, of which only 1465 were full-time. Interns represented 21 per cent of the full-time students but only 3 per cent of all administration majors.[1]

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 42.

[2] Frank Billings Greer, "The Internship for Prospective Administrators: A Determination of Best Practices and Proposals for Programs in North Carolina," (Unpublished Doctor of Education Project, Chapel Hill, University of North Carolina, 1957), pp. 25-32, cited in Internship Programs in Educational Administration (Washington, D.C.: The American Association of School Administrators, 1964), p. 11.

[3] American Association of School Administrators, Internship Programs in Educational Administration (Washington, D.C.: The American Association of School Administrators, 1964), p. 16.

[4] American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington, D.C.: The American Association of School Administrators, 1964), p. 20.

There is probably no single program which has received more publicity and encouragement during the past eighteen years than the internship.[2] Participants, and those who work with them, strongly recommend that it be required of all administration majors, since the values gained on the job cannot be fully duplicated in any other way. But AASA also reports why this, among other programs, has not spread as widely as the colleges themselves desire. Major deterrents to improvements in programs are inadequate (1) funds, (2) research, (3) facilities, and (4) personnel.[3] (Lack of funds is mentioned more than twice as often as the next deterrent to better programs.) The old saw, "The man who pays the piper calls the tune," is still true. Preparation programs have danced to the money tune for many years and there are several financial problems in providing internships, the most serious being financial aid to the intern.[4] Finally, although most authorities agree on the general desirability of the internship, many also comment upon the difficulty in controlling the kinds of experience in which the intern participates.[1]

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[1] American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington, D.C.: The American Association of School Administrators, 1964), p. 22.

[2] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 45.

[3] American Association of School Administrators, op. cit., p. 29.

[4] Clarence A. Newell, Handbook for the Development of Internship Programs in Educational Administration (New York: Cooperative Program in Educational Administration, Teachers College, Columbia University, 1952), p. 15.

Case Studies

The case study method, as it involves the interactions of human relations for study and learning purposes, is generally conceded to have originated at Harvard in their Administrative Career Program. Sargent and Belisle, in their forward to *Educational Administration: Cases and Concepts*, point out their debt to the technique used earlier in the Harvard Graduate School of Business Administration.[2] Since the Sargent and Belisle book, there have been numerous other volumes of cases about educational administration published. Many of the cases were developed by the combination of NCPEA personnel utilizing Kellogg grants, as was the situation of the Sargent and Belisle volume. The most recent development has been the production and distribution of individual cases by UCEA. Several of these have been produced on tape and a few have been produced on film.[3]

Cases are usually recommended for use in some variation of the following manner:[1] a description of a real situation, in varying amounts of detail, is presented to a group; the instructor acts primarily as a guide to group discussion as they go through attempts to solve the dilemma as presented. Typical of the questions used by instructors to focus discussion are the following: What are the problems involved and what is the basic problem? On what evidence is this based? As stated, what appears to be the best solution or solutions? If this solution were implemented what would be its logical consequences? Are there other, better solutions? What evidence would you like in addition to that given? How could you get it? Could this dilemma have been prevented, and if so, how? Other questions have been suggested by other authors.

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[1] Michael P. Thomas, Jr., *Strategies in the Preparation of School Administrators*, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 46.

[2] Cyril G. Sargent and Eugene L. Belisle, *Educational Administration: Cases and Concepts* (Boston: Houghton Mifflin Company, 1955), pp. ix-x.

[3] The University Council for Educational Administration, *Instructional Materials Catalog* (Columbus, Ohio: The University Council for Educational Administration, 1964), pp. 15-19.

Discussion and problem-solving by students, focused upon the facts as given, is the heart of the technique.[2] The instructor needs to learn how to be a catalyst but not a part of the reaction. This is difficult since it runs contrary to the training of both the instructor and the students. Students, even at best, still want to know the "right answer" or at least what the instructor thinks is the best solution.

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[1] Daniel Griffiths, Human Relations in School Administration (New York: Appleton-Century-Crofts, Inc., 1956), p. 440, and Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), pp. 19-21.

[2] The W. K. Kellogg Foundation, Toward Improved School Administration (Battle Creek, Michigan: The W. K. Kellogg Foundation, 1964), pp. 18-19.

By being permissive, stimulating and guiding, the instructor can motivate far more involvement in problem-solving than through lecture or discussion of theory sessions. Students find, not only that there are many "right" answers, but also that there are many different basic perceptions of what the problem is, and that several solutions may end with similar final results after follow-up action to initial steps taken. The human interaction, the search for facts to support conclusions, and the ego involvement all contribute to far more learning than mere discussion of any one concept.

Block-of-Time Programs (Administrative Core)

As mentioned previously, dissatisfactions with the increasing fragmentation of courses had led many to question the practice for years, but it was difficult to break the trend. The academic elective system of equivalent "credit hours" made administration of many separate, discrete courses easier than integrating them into longer units. Block-of-time programs are difficult to schedule, both in determining a time to offer it and the place in the sequence in which it belongs. They create problems in staffing and in reporting a breakdown of credit, often required for certification.

Yet, in spite of the many difficulties, several universities (especially Texas, Buffalo, Nebraska, Harvard, Teachers College /Columbia/, and Ohio State)[1] have attempted to find a workable "core" type of program. The evaluations of these programs, especially by the students, has been uniformly high. The major values have been flexibility, planning of activities and evaluation by students, opportunity to experience problems as inter-related wholes, variety of activities and outside resources possible to use, and student responsibility for their own learning.[1]

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[1] Wesley T. Shepard, "A Study of Educational Administration 250, Principles and Processes of Educational Administration," (Unpublished Doctoral dissertation, The University of Nebraska), pp. 35-66.

However, the problems have not all been solved as yet. At least one institution has dropped the program completely and it has not spread to a large number of other universities. Only twelve institutions mention core or block as a major strength of their programs.[2]

Inter-Disciplinary Study

Much of the research upon which new concepts of behavior in educational administration are based was done by behavioral scientists using situations and personnel not in education, but in their own fields. Yet, the findings often appear valid for situations in schools. As the preface to a recent book points out, there is an analagous contribution of the social sciences to educational administration much like that of the biological sciences to medicine. Each can provide the theoretical and experimental base for the practice of the implementing profession.[3] Rather than merely interpreting the points of view second-hand, several universities have used scholars from Business Administration, Sociology, Political Science, and Social Psychology, among others, in teaching students of educational administration.[1]

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[1] Wesley T. Shepard, "A Study of Educational Administration 250, Principles and Processes of Educational Administration," (Unpublished Doctoral dissertation, The University of Nebraska), pp. 35-65.

[2] American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington D.C.: The American Association of School Administrators, 1964), p. 27.

[3] Donald E. Tope, et al., The Social Sciences View School Administration (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965), p. iii.

On the simplest level, future school administrators merely enroll in these other areas for courses relevant to them. Other approaches are to use a panel of professors from several disciplines to interact on one specific problem. Several institutions use integrated seminars in which the basic methodology and findings of one or more fields are related to educational problems.[2] At the highest level of integration are the attempts by a few institutions to utilize a "department" or "core program" of administration which draws from the underlying conceptual bases of administration in many areas.[3] Finally, there is an increasing amount of literature which integrates two or more areas, most frequently education and political science or sociology as the belief grows that "power structure" is as meaningful a concept for the educational administrator as is democracy or human relations.[4]

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[1] Walter A. Anderson and Richard C. Lonsdale, "Learning Administrative Behavior," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg (New York: Harper and Brothers, 1957), pp. 443-446.

[2] The W. K. Kellogg Foundation, Toward Improved School Administration (Battle Creek, Michigan: The W. K. Kellogg Foundation, 1964), pp. 19-20, and American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington, D.C.: The American Association of School Administrators, 1964), p. 19.

[3] Keith Goldhammer, "A Core Program for Educational, Business and Public Administrators," (Columbus, Ohio: The University Council for Educational Administrators, 1962). (Mimeographed.)

[4] Ralph Kimbrough, Political Power and Educational Decision-Making (Chicago: Rand McNalley & Company, 1964), pp. 6-7.

The "T" Group (Human Relations and Group Process)

The "T" or "training" group was a particular type of group focused upon training its members to improve their knowledge of and participation in group processes. Originated at the National Training Laboratory in 1947,[1] it was first used by Teachers College for the human relations training of future administrators,

> The T-group experience was designed to meet a number of human relations needs presumed to be salient for the administrator-in-training: (1) increased sensitivity to the dynamics of face-to-face groups; (2) deeper understanding of the future administrator's own role; (3) more skillful collaborative operation in small groups; (4) internalization of democratic norms; (5) greater self-understanding and acceptance. In the second year, the D-group program added the possibility that T-group members, as leaders, might as a sixth objective, learn the "trainer" skills involved in encouraging group growth.[2]

Although not always called by the same name, the concept and techniques of the T-group spread, primarily from the summer sessions of the National Training Laboratory at Bethel, Maine. Perhaps more than any other of the above-mentioned techniques of teaching, the T-group best exemplifies the ideal of testing theory in practice during the training period while under the guidance and control of instructors. It is an extremely flexible tool since the size of the groups can be varied easily as can the amount of time in each session, the number of sessions, the concepts utilized and the evaluation of the productivity of any group member, or of the group itself. One of the major reasons for this flexibility is its use of theory and concept as the central subject matter for discussion. The problems discussed are the real problems facing the participants and selected by them.[1] The knowledge learned from reading about group process is discussed and, in its turn, becomes the tool for solving problems and evaluating the success of any group meeting. Skills learned are real; they involve sensitivity to one's own emotions and needs as well as those of other group members. If transfer of training is aided by commonality of elements[2] then T-group skills and concepts should transfer easily to the staff meeting, the parent conference, and the committee.

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[1] Leland Bradford, Jack R. Gibb, and Kenneth D. Benne, T-Group Theory and Laboratory Method (New York: John Wiley and Sons, Inc., 1964), p. 2.

[2] Walter A. Anderson and Richard C. Lonsdale, "Learning Administrative Behavior," Administrative Behavior in Education, Edited by Roald F. Campbell and Russell T. Gregg (New York: Harper and Brothers, 1957), p. 439.

Role-Playing (Socio-Drama)

Although this technique has been practiced in some form for many years it has only recently found its way into regular planned usage in administrative training programs. Credit for its rebirth is generally given to J. R. Moreno who used this technique and the more complex but similar psycho-drama as part of his group therapy work for mental patients.[3] Participants acted out the roles in a situation to see how it felt to be inside a specific relationship. Better yet, it became possible to try one role under several varied circumstances and compare the ways one felt during each trial. The nature of social relationships was often clarified for the observer as well as the participant.

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[1] Leland P. Brandford, Jack R. Gibb, and Kenneth D. Benne, T-Group Theory and Laboratory Method (New York: John Wiley and Sons, Inc., 1964), pp. 15-16.

[2] Percival M. Symonds, What Education Has to Learn from Psychology (New York: Bureau of Publications, Teachers College, Columbia University, 1960), pp. 78-79 and 89-90.

[3] William Clark Trow, "Group Processes," Encyclopedia of Educational Research (3rd ed.) Edited by Chester W. Harris (New York: The Macmillan Company, 1960), p. 603.

This writer recalls the role-playing of several alternate ways to interview a prospective teacher in a Staff Personnel class conducted by Willard Elsbree. Observers could see, almost feel, the reactions of the teacher to several approaches tried by various administrators. Later, they could discuss reactions with the persons who played each role.

Coupled with prior training in group dynamics to provide conceptual support, role-playing can provide vivid insights into why various things happen. The emotional involvement is temporarily a very "real" experience; yet alternate behaviors can be discussed with little threat. The participant is, after all, merely playing a role.[1]

Simulation

Although several highly sophisticated forms of simulation have been developed within the last 25 years, the basic technique has undoubtedly been used for centuries. War games are its oldest recorded form and many early civilizations taught their youth to fight as a beginning of their training. The youth bands of Sparta living off the land, and the jousting tournaments for knights in the Middle Ages are further extensions. In this century, the Link Trainer and Drive-Mobile were developed to train persons in flying a plane and driving a car under realistic conditions in order to prevent accidents from occurring during the training period.[1]

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 29.

Simulation, as it pertains to a technique for training school administrators, owes its existence to the development by Norman Frederiksen of the In-Basket Technique for evaluating the administrative training of Air Force officers.[2] This technique was quickly adapted, after the war, to the training of business executives[3] and soon thereafter to a research project on the administrative behavior of school principals.[4] Simulation is still very much a topic for discussion and research in both business and education, as well as being a current teaching technique.

Hemphill describes the heart of the simulation experience, the In-Basket technique, as follows:

> . . . [In-Baskets] are used to keep incoming and outgoing correspondence in order and to provide a place for a secretary or assistant to deposit incoming documents. . . . An in-basket test is a collection of documents which presumably accumulate in the in-basket of an administrator and which are awaiting his attention. . . .He makes his responses as if he were actually on the job and whatever he produces in taking the test--the products of his work-- are his "answers" to the test items.

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[1] Richard Wynn, "Simulation: Terrible Reality in the Preparation of School Administrators," *Phi Delta Kappan*, XLVI: 170, December 1964.

[2] John K. Hemphill, "The In-Basket Technique, Overview," *The In-Basket Technique*, Proceedings of the Conference on the Executive Study (Princeton: Educational Testing Service, 1961), p. 2.

[3] *Ibid*., p. 35.

[4] John K. Hemphill, Daniel E. Griffiths, and Norman Frederiksen, *Administrative Performance and Personality* (New York: Bureau of Publications, Teachers College, Columbia University, 1962), pp. vii-viii.

> The in-basket technique is one example of a well-known technique of testing for specific skills--the job sample test. . . .[1]
>
> If an individual can handle effectively the administration problems that are presented to him in an in-basket test, it may be reasoned that he has the skills of a good administrator or the aptitude to learn administration.
>
> . . . .
>
> The items of the in-basket test pose problems that a manager is expected to be able to handle and, therefore, can provide him opportunities to gain experience in analyzing errors and to profit from instruction and/or discussion. . . .[2]

Frederiksen and Hemphill outlined a proposal to study school administrators by the use of the In-Basket technique.[3] Davies, then director of the organization which has become the University Council of Educational Administration, and Griffiths worked with Hemphill in developing the final proposal, which received a grant from the U.S. Office of Education.[4] Kellogg Foundation funds were also used in completing the development of the simulated school.[5] "Although the project, which developed simulated situations, was conceived originally as an attempt to discover methods of predicting the probable success of prospective administrators, simulated situation materials are now being used as aids in the . . . training of practicing administrators.[1]

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[1] John K. Hemphill, "The In-Basket Technique, Overview," The In-Basket Technique, Proceedings of the Conference on the Executive Study (Princeton: Educational Testing Service, 1961), p. 1.

[2] Ibid., p. 3.

[3] John K. Hemphill, Daniel E. Griffiths, and Norman Frederiksen, Administrative Performance and Personality (New York: Bureau of Publications, Teachers College, Columbia University, 1962), p. vii.

[4] Ibid., pp. vii-viii.

[5] W. K. Kellogg Foundation, Toward Improved School Administration (Battle Creek, Michigan: The W. K. Kellogg Foundation, 1964), pp. 21-22.

Culbertson stated that ". . . The purpose of the research was to obtain a better understanding of patterns of administrative behavior. It was also anticipated that the study would provide a better base for selecting principals.[2] ". . . Although the materials . . . were developed for research purposes, persons who observed the test situations as well as the principals who experienced the situations frequently expressed the idea that 'these simulated materials have a great deal of promise for instructing school administrators.'"[3] Thus it was that testing and research materials found their way into instructional use.

These simulated materials, which replicate the Jefferson community in the state of Lafayette and its school system (an actual community abstracted to prevent identification) with special attention to the Whitman Elementary School principalship, are described in detail by Hemphill, Griffiths, and Frederiksen in their report of the original research, Chapters III and IV.[4] The basic simulated materials include

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[1] W. K. Kellogg Foundation, Toward Improved School Administration (Battle Creek, Michigan: The W. K. Kellogg Foundation, 1964), p. 21.

[2] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 3.

[3] Ibid., p. 5.

[4] John K. Hemphill, Daniel E. Griffiths, and Norman Frederiksen, Administrative Performance and Personality (New York: Bureau of Publications, Teachers College, Columbia University, 1962), pp. 26-62.

96 In-Basket items distributed among three In-Baskets (as described above) and a set of background materials needed to understand the situation and complete the In-Baskets: a School-Community Study, a Board Policy Handbook, a Staff Handbook, a State School Law Digest, a study of the Whitman Faculty, a film, "You Will Enjoy Teaching in Jefferson," a filmstrip tour of the community, several tape-recorded incidents and a set of miscellaneous tables and data about Whitman School.[1] In addition to background materials and In-Baskets, other problem materials are presented via tape recordings, kinescopes of teachers at work, and a group inter-action problem.[2]

The core of most training experiences which utilize simulation is the completion of several In-Baskets. A typical program, as described by the UCEA, is as follows:[3]

Day 1 --(Monday of Week 1) -- Getting Acquainted with Background Materials (Community Study)

Day 2 --Background Materials (Staff Study and Handbook, Presentation of Administrative Concepts)

Day 3 --Background Film, Study, and Discussion

Day 4 --Background Filmstrip, Recordings, and Taped Special Problems

Day 5 --Kinescopes (Teachers at Work in Classroom) 1st In-Basket A

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[1] John K. Hemphill, Daniel E. Griffiths, and Norman Frederiksen, Administrative Performance and Personality (New York: Bureau of Publications, Teachers College, Columbia University, 1962), p. 39-59.

[2] Ibid., p. 59-61.

[3] The University Council for Educational Administration, The Instructional Uses of Simulation in The Preparation of School Administrators (Columbus, Ohio: The University Council for Educational Administration, 1964), Appendix B, Schedule 2, un-paged.

Day 6 --(Monday of Week 2) -- Post In-Basket Session A,
In-Basket C

Day 7 --Post In-Basket Session C, Conceptual Analysis and Review

Day 8 --In-Basket D, Post In-Basket Session D

Day 9 --Conceptual Analysis and Review; Presentation,
"Critical Task Areas in Administration"

Day 10--Evaluation of Simulation Workshop (Written and
Oral)

Each day's session (two 2-hour periods) would involve much total and small group discussion of the topics for that day and occasional presentations on the topics listed. However, the bulk of the time is taken up with studying background materials (25 per cent), reacting to In-Basket items (15 per cent) and discussion of responses to In-Baskets (25 per cent).

During the first year after the research project (in 1958-59) there were three experimental workshops, one each at Stanford University, the University of Chicago, and Teachers College, Columbia University. The results, as analyzed by UCEA staff members,[1] were so promising that UCEA took on the task of reproducing all of the materials in order to make them available to other professors of educational administration. The materials were first available for the summer of 1961. During an AASA meeting that spring, demonstrations on how to use the materials were given to interested professors. Since 1961 this pattern of demonstration sessions and UCEA distribution of materials has not only resulted in widespread use of the original materials, but also in stimulating the creation of other, generally briefer, simulations by several professors and, to fill the demand the elementary principal materials had created for other materials, the production of In-Baskets compatible with the Jefferson background materials for the superintendent, business manager, secondary principal, and curriculum director.

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), pp. 9-46.

It is this latter technique, simulation, that is the concern of this study. The other techniques are relevant to the study for the insights they give regarding effective procedures for teaching school administrators and for the possibility that they may be included in conjunction with simulation in a training situation.

Criteria for Selection of Techniques in Teaching School Administration

Throughout this history of training programs and specific techniques one point stands out with clarity: because of the present complexity of the job of the school administrator and his rapidly expanding role in both education and the community, no known single teaching technique or combination of techniques is clearly adequate for the purpose of training school administrators. ". . . it is abundantly clear that none of these strategies makes consummate sense when taken out of the context of a total program . . . that makes sense . . ."[1] Although there are a variety of methods or strategies strongly advocated by some professors of educational administration, no one appears satisfied that their preferred strategy can alone perform all of the desired tasks or fulfill all of the purposes. The most prevalent opinion appears to be that what is needed is a variety of techniques, each planned to fit specific purposes in an overall, flexible program which keeps track of each individual candidate and attempts to fill his needs.[1]

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. xiii.

If this view is correct, and it does have a sort of "common sense" logic, then it is most important to know as much as possible about how learning takes place, about alternate teaching techniques and their effects, and also about the role of the administrator, so that training programs can be carefully planned to utilize each factor as effectively as possible.[2] Greenlaw, in commenting upon the effectiveness of simulation in management training, notes that most educators agree upon ". . .the conditions under which . . . neural modification seems to take place fastest and easiest. These 'laws of learning' include: (1) contiguity, (2) effect, (3) intensity, (4) organization, (5) facilitation and interference, and (6) exercise."[3] Greenlaw goes on to explain each of these laws at greater length. Re-stated more simply and briefly it appears that learning is most efficient when learnings intended to be connected occur together within a short period of time and are reinforced together (contiguity); when the learning activity ends with satisfying results (effect); when the response the learner makes to the activity is strong and utilizes several senses (intensity); when the learning is presented with meaningful inter-relationships (organization); when new learning builds upon former learnings (facilitation); and when learning activities are repeated with high motivation and other favorable learning conditions (exercise).[1] It would appear, therefore, that those teaching techniques which capitalize upon these laws of learning should be the most efficient techniques for training administrators. Greenlaw feels that simulation does satisfy these conditions in the training of business managers.[2] We should establish similar criteria for judging the effectiveness of simulation in teaching school administration. Such criteria can be derived from the evidence supplied by the historical overview, and from opinions of professors about techniques currently in use.

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), pp. 10-11 and pp. 47-48.

[2] Ibid., p. 47.

[3] Paul S. Greenlaw, Lowell W. Herron, and Richard H. Rawdon, Business Simulation (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1962), p. 33.

First, cues supplies by the persistence of certain factors throughout the history of training programs for school administrators indicate that at present we should:

1. utilize the latest research evidence and theories about administration available;

2. incorporate (or consider for adaptation and use) the best current training techniques and theories available in other branches of the profession of administration;

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[1] Paul S. Greenlaw, Lowell W. Herron, and Richard H. Rawdon, Business Simulation (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1962), pp. 33-34.

[2] *Ibid.*, pp. 46-48.

3. require students to participate in activities that test theories and concepts in solving real problems of school administrators;

4. avoid over-commitment to, or complete reliance upon, any one theory of administration or corresponding training techniques;

5. involve students in working in and with groups, since human relations has so consistently been recognized as important to school administration; and

6. more quickly reflect new research findings about teaching techniques, at least experimentally, so that skills are not obsolete before their utilization in the majority of training programs and hence, in application in the schools.

Similarly, the most recent comparative assessment of methods for teaching school administrators made by recognized leaders in this field of training, the 1963 NCPEA conference on instructional strategies, recommended that persons planning training programs should:

1. carefully select the purposes they desire to achieve in the program, corresponding to the current evidence of what school administration is and/or should be, before deciding what to teach and what strategies to use in teaching to achieve these purposes;[1]

2. "make knowledge about administrative behavior explicitly applicable to action;"[2]

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 47.

[2] Ibid., p. 41.

3. strive for a high degree of student involvement in learning activities;[1]

4. ". . . [create] the situations in which intelligent questions are likely to be asked."[2]

5. ". . . reflect a concern that the content of administrator preparation be tied as tightly as possible to the reality of school administration."[3]

6. implement McIntyre's assertion that ". . . human relations skills can be built [only by] getting the student actively involved in the process . . ."[4] and ". . . human relations more than anything else are the key to success or failure."[5]

7. help students see the broad overview of administration: its inter-related aspects and the wide variety of relevant and trivial data involved in administrative behavior.[6]

Chapter III will report the specific findings of a status survey of how simulation has been used over the past five years. Although the survey initially undertook to find out about all uses of simulation, including gaming, the majority of returns dealt with the use of the Jefferson school-community simulation. As a result, Chapters III, IV, and V will explore and summarize data from the use of these materials almost exclusively. Where reference is made to other materials, it will be so designated. Chapter IV will compare the data reported with the above recommendations for content and method in administrative training programs.

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[1] Michael P. Thomas, Jr., *Strategies in the Preparation of School Administrators*, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: The University of Nebraska, 1964), p. 16.

[2] *Ibid.*, p. x. [3] *Ibid.*, p. ix. [4] *Ibid.*, p. 7.

[5] *Ibid.*, p. 6. [6] *Ibid.*, pp. 20 and 42.

CHAPTER III

THE CURRENT STATUS OF SIMULATION IN TRAINING SCHOOL ADMINISTRATORS

Procedures of the Survey

The logical way to begin a status study on the use of simulation seemed to be to question the professors who had experience with such use. In order to do this it was necessary to compile a list of users and to construct one or more suitable questionnaires to send to them.

Extent of Use

In order to compile a mailing list of professors of education who had used simulation, a postcard survey was made of 268 institutions which were listed as offering some course work for school administrators. This list was a composite obtained by combining the tenth annual list of institutions accredited by the National Council for Accreditation of Teacher Education,[1] the American Association of School Administrators (AASA) mailing list for their 1964 survey,[2] the mailing list of the National Conference of Professors of Educational

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[1] National Council for Accreditation of Teacher Education, Tenth Annual List, Effective July 1, 1963, to June 30, 1964 (Washington: National Council for Accreditation of Teacher Education, 1963).

[2] American Association of School Administrators, The Professional Preparation of Superintendents of Schools (Washington: American Association of School Administrators, 1964), pp. 50-56.

Administration (NCPEA),[1] and the University Council for Educational Administration (UCEA) list of attendance at their institutes for learning about the simulation technique.[2] Cards were addressed to the chairman of the Department of Educational Administration asking whether anyone at the institution had used simulation materials and, if so, the names of the professors who had used it. The results of this postcard survey were as follows:

Number of institutions reporting use of simulation	87
Number reporting no use of simulation	158
Number not responding	23
Total number of postcards mailed	268

The 87 institutions reporting use of simulation listed 186 professors as users of simulation, and these persons were mailed a five-page questionnaire.[3] The results of this mailing were:

Number returning completed questionnaire (Q. #1)	83
Number of professors who were co-users, included in above	12
Number replying that they had not used simulation	49
Number of users replying by letter but not completing the questionnaire	5
Number not responding	37
Total number of (Q.#1) mailed	186

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[1] Dale K. Hayes, *Revised Mailing List, October, 1963, National Conference of Professors of Educational Administration* (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1963).

[2] Letter from Edwin M. Bridges, Director, Articulated Media Project, UCEA, September 11, 1964, to the author.

[3] A sample of each of the instruments used in this study, and the accompanying letters, may be found in Appendix B.

Several respondents indicated dissatisfaction with their first experience with simulation and a desire to change and improve its future use. Others reported being hampered by limitations of time and/or money beyond their control. In part, because of these responses, a second forced-choice questionnaire was sent to all but those responding that they had not used simulation at all--both to those completing the first questionnaire and to those who did not reply in any manner.

The results of the forced-choice questionnaire (Q. #2) mailing were as follows:

Number responding to both Q.#1 and Q.#2	76
Number responding to Q.#2 only	25
Total number returning Q.#2 completed	101
Number replying to Q.#1 but not replying to Q.#2	15
Number not replying to either questionnaire	21
Total number of Q.#2 mailed	137

Interviews, in person or by telephone, were held with those respondents whose comments indicated either extensive or unique use of simulation, as well as with those whose responses were confusing. These interviews are reported as part of the appropriate questionnaire.

Results of a minimum of three mailings as part of the present survey, plus a telephone follow-up, indicates that 123 professors at 90 institutions had actually used simulation by September of 1964.[1] An additional 15 state that they have plans to use it by September,

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[1] A list of these professors and their institutions may be found in Appendix A.

1965. Eight others expressed a desire to learn more about the technique with a view to possible future use. This represents substantial growth from the six professors first using simulation in three experimental workshops in 1958.

Questionnaire Construction

The first questionnaire grew out of a list of questions which it was believed would show both the extent and manner of simulation use and opinions about its effectiveness. Where numerical data was desired, a check list or brief-response question was used. Where a personal reaction was desired, an open-ended question was used to avoid suggesting possible or desired types of response. The initial format was tested with several professors at the author's institution. The revised form, incorporating their suggestions, was sent to the project advisors. Suggestions for improvement made by the advisors were incorporated in a third draft, which was sent to ten professors suggested by the project chairman and/or UCEA as experienced users of simulation. All of these ten professors were then interviewed for further suggestions for improvement of the questionnaire, clarification and amplification of their own responses, and other suggestions for improving the study. An early interview with a professor who had used simulation extensively brought the suggestion of a forced-choice instrument instead of the proposed questionnaire, in order to get data regarding the best available opinions for more effective use of simulation. Discussions of this possibility with the other interviewees produced definite feelings by most respondents that both instruments were needed since each would produce a different type of data. The advisors concurred and it was decided to let the specific form of the forced-choice instrument grow out of the responses to the first questionnaire.

The first questionnaire, as revised, was then sent to the 176 names (in addition to the ten on the trial run) reported by responses to the postcard survey. Returns were tabulated by categories which became the basis for the forced-choice questionnaire. Since the ten professors interviewed were in agreement that the purposes selected for emphasis were highly influential in determining the materials, methods, and format used, the second questionnaire was constructed with general and specific purposes as the major foci. The first draft of questionnaire #2 was then revised by a series of steps similar to those described above. An initial draft went through a trial run by eight professors, whose comments and criticisms were then incorporated in a second draft which was submitted to the project advisors. Suggestions by advisors were incorporated in a third draft, which became the final forced-choice instrument.

During discussion of the initial responses to the first questionnaire with project advisors, the amount of enthusiasm being reported by professor-directors was questioned by them. Since it was quite possible that the sample of professors responding was biased in favor of simulation, since they were the ones who had used it, various possibilities were explored for checking on their enthusiasm. It was finally decided to send an opinionnaire to a sample of simulation participants to get their direct reaction to a simulation experience. The objective sections of this third instrument were patterned after that used by Shepard in his study at Nebraska.[1] The open-ended questions were adapted from post-workshop opinionnaires used by McNally at Teachers College, Columbia University.[2] This third instrument was also refined by the steps described above: first, by the reactions of several professors and then by suggestions from the project advisors.

Reporting The Survey Results

The remainder of Chapter III will report the responses to the first questionnaire. Since it was open-ended, the categories are those derived from the responses themselves. Not every professor answered all the questions. Questions 5, 10, 11, and 12 requested information about the use of additional materials or about other personnel using simulation and were not related directly to simulation. Omissions of these questions may merely mean that there was nothing to report. Question two was omitted most frequently (24 times) and several persons commented that they were unsure of what precise information was desired in reply.

Opinions about the strengths and weaknesses of simulation, reported in the first questionnaire, will be summarized in Chapter IV, along with the results of the opinionnaire from participants and other reports which evaluated the effectiveness of simulation.

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[1] Wesley T. Shepard, "A Study of Educational Administration 250, Principles and Processes of Educational Administration," (Unpublished Doctoral dissertation, The University of Nebraska).

[2] Materials sent to the author by Harold J. McNally.

The forced-choice questionnaire (Q, #2) will be reported in Chapter V.

Purposes Of Simulation Use

One of the major points of emphasis stressed in the UCEA institutes, designed to instruct professors in beginning use of simulation, is the necessity for determining purposes before one plans the specific activities to use.[1] Either because this instruction "stuck" or because the professors already implemented this belief in their other classes, 80 of the 83 responding cited specific purposes for which simulation use was planned. Presumably the other three had some specific reasons for using simulation, but chose not to answer. Four other respondents also omitted this question but stated their purposes elsewhere in the questionnaire. Several professors sent copies of their promotional brochures, each of which emphasized various intended purposes. A summary of the purposes reported in the survey may be found in Table II.

By far the most prevalent general purpose for the use of simulation was the encouragement of conceptual learning. Even more dramatic was the number reporting the specific purposes of decision-

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[1] Glenn Immegart, "The Place of Simulation in Pre-Service and In-Service Programs," talk given on April 14, 1964, at UCEA Institute, Kansas State College of Pittsburg, (recorded on tape and in author's possession), and Glenn Immegart, "The Use of Simulated Materials in Eight Universities," The Instructional Uses of Simulation in the Preparation of School Administrators (Columbus, Ohio: UCEA, 1962), pp. 1-3.

TABLE II

PURPOSES FOR WHICH SIMULATION HAS BEEN USED[a]

A. General Purposes[c]	Frequency of Use[b]
Conceptual Learning in Real Setting	46
Practice in Skills (Theory Tested in Practice)	36
Involvement of Participants	32
Illustrative of Administrative Materials and Problems	23
Self-Evaluation of Own Administrative Behavior	19
Background Common to All	7
Research on Administrative Behavior in "Model" Set-up	7
Recruitment, Guidance and Screening	5
Feedback to Student on Consequences	4
"The UCEA Purposes"	4
Competing Stimuli for Student to Draw From	2
Test Relationship between Ideal and Constraints	1
Re-order Pre-existing Knowledge into new "Whole"	1
B. Specific Purposes[c] (usually mentioned in connection with one or more of the general purposes listed above).	
Decision-Making	30
Group Dynamics and Human Relations	10
Communication	9
Sociological Aspects of Staff	7
Staff Personnel and Teacher Supervision	6
Sociological Aspects of Community	5
The Administrative Personality and D.C.S. Study Findings	5
Scheduling of Work and Time	5
Leadership Theory	3
School-Community Relations	3
Perception and Administration	3
The Instructional Program	2

[a] More detailed descriptions of these purposes will be found in Appendix C.

[b] The frequency totals 187 general plus 88 specific purposes since most responses listed more than one purpose.

[c] Eighty of the 83 respondents answered this question.

making as the concept focused upon. Group dynamics and human relations, communication and the sociological aspects of the school staff were the specific purposes mentioned next in frequency. Each of these was often mentioned together with conceptual learning by a professor as a central purpose of his use of simulation.

The general purposes mentioned next in frequency, and often in combination with conceptual learning, were practice in administrative skills (testing theory in practice) and student involvement in realistic problems. This combination of conceptual learning, practice in skills, and involvement, with emphasis upon decision-making, human relations, communication, and sociology of the staff might have been expected since it is basically the combination advocated at the UCEA institutes.[1] In fact, four respondents replied, very briefly, that their purposes were "the UCEA purposes."

It is interesting to note that several professors have attempted to use simulation to implement purposes other than those advocated by UCEA institutes, such as recruitment, guidance and screening, and self-evaluation. Even more unique were those who had used simulation materials to illustrate the variety of materials an administrator works with and the problems he faces. In one instance, a student from Nigeria asked to take the set of simulation materials back home with him as the best model he had seen of an American school system. Two professors indicated that they had used simulation in part to demonstrate the technique to graduate assistants who were training to be future professors of administration.

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[1] Luvern Cunningham, "Three Uses of Simulation," talk given on April 14, 1964, at UCEA Institute, Kansas State College of Pittsburg (recorded on tape and in author's possession).

It was not assumed from the data that the statement of any given purpose precluded activities which might lead to other purposes having been achieved. Although several respondents indicated that they used simulation solely to illustrate the wide variety of administrative problems or to provide a common background for discussion, a listing of the activities which they incorporated in the experience or class would indicate the possibility that participants were at least exposed to other purposes, e.g., practice of skills. Either obvious goals were assumed by the respondents since the UCEA had mentioned them or lack of awareness by the instructor prevented maximum focus on what was done anyway.

Simulation Materials Used

Although the survey attempted to ascertain the extent of use of simulation in any form, the questionnaire focused primarily upon the Jefferson simulation materials, since UCEA publication and encouragement had made them most widely available and since they were the most frequently reported in use. However, respondents who had used the simulation technique with their own materials described them and their use in reply to several questions. Many sent in samples of their materials with their completed questionnaires.

School Personnel Management Game

Two professors commented favorably about the School Personnel

Management Game[1] in comparison to the Jefferson materials in response to the original questionnaire (Q.#1). As a result, a separate survey was undertaken to ascertain the extent and popularity of this specific variation of simulation. The authors of the game furnished a list of purchasers of the necessary materials, including 103 institutions of higher education. These colleges and universities were mailed a postcard to determine if they had used this game in the training of school administrators. The seventy-two replies indicated that sixty-four had not yet used it by August of 1964, and fifteen of the sixty-four further replied that after diligent search they could find no record of anyone at their institution using or purchasing the materials. Of the sixty-four not using the game, six stated that they planned to use it during the summer of 1965. Eight out of the seventy-two replying to the postcard questionnaire stated that they had used the game. These were sent questionnaires similar to the open-ended form used with regard to Jefferson or original simulation materials, but only three were completed and returned, and this number included one by the writer. Another one of these was so incomplete that it was unusable. The remaining one was extremely negative. Because of the extremely small number of returns, it was decided not to utilize the results of this survey. One curious fact uncovered by the survey was that neither of the two professors who originally commented about the game, and who hence prompted this additional study, bothered to answer the questionnaire. One had stated that he merely used the game for "illustrative" purposes on the postcard he returned.

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[1] John Forbes and Darrell Willey, The School Personnel Management Game (University Park, New Mexico: The Academic Planning Tool Center, New Mexico State University, 1963).

It was also interesting that four of the eight postcards indicating their use of this game contained negative comments about it. This may indicate the reason for not returning the questionnaire later. Finally, neither of the authors of the game replied to a request for their personal appraisals of the success of the technique. Left with only personal reactions from using it in a class one summer and one outside questionnaire, the author felt compelled to abandon a comparison of the only two commercially available simulation materials: the Jefferson simulation and the School Personnel Management Game.

Materials Used in Simulation Experiences Reported

Table III summarizes the use of the UCEA Jefferson materials. The materials with the most frequent use were the general background materials, In-Baskets A, C, and D (the latter two often only in part), most of the problem and background tapes, and the kinescopes of teachers in action. Least frequently used were the interaction problem; several of the problem tapes; the newly published superintendent, secondary, and business In-Baskets; and the test of background knowledge. Since frequent use of outside films and cases and "homegrown" problem materials was reported in connection with UCEA simulation materials, it would appear that there was some tendency to use the standardized materials to develop background and set the stage for realistic involvement, and then to select and utilize whatever materials, regardless of source, that appear to accomplish the purposes desired.

Table IV shows the extent of the development of original simulation materials, as well as the use of non-Jefferson materials in

TABLE III

JEFFERSON SIMULATION MATERIALS USED

A. Printed Background Materials	Frequency of Use (Out of 64 Possible)
1. Community Study	64
2. Faculty Study	63
3. Faculty Handbook	62
4. Board Policies and By-Laws	62
5. State School Laws	61
6. Faculty Personnel Folders	59
7. Miscellaneous Background Materials	47

B. In-Baskets

	Frequency of Use			
	Whole	In Part	Both	Total Use
1. A	44	8	5	57
2. C	39	11	4	54
3. D	38	12	3	53
4. Supt.	11	4	2	17
5. X	9	3	1	13
6. Secondary	5	3	0	8
7. Business	1	0	1	2

C. Background Tapes, Film and Filmstrips

1. Filmstrip Tour of Jefferson	60
2. Background Film "You Will Enjoy Teaching in Jefferson"	58
3. Teachers Lounge Conversation	46
4. Superintendent and Principal Meeting	45
5. P.T.A. Speaker	42
6. Talk by Superintendent (Jr. High Addition)	39
7. School Board Meeting	34

D. Taped Problems

1. Child Sick in Class (Elem. Interruption)	52
2. Fire Drill and Accident (Elem. Interruption)	48
3. Conference Between Teacher and Parent	45
4. Conference with Teacher and School Psychologist	40
5. Morals Charge (Supt. Interruption)	8
6. Chemistry Lab Explosion (Supt. Interruption)	8

E. Kinescopes of Teachers in Action

1. First Grade (Arithmetic)	52
2. Third Grade (Social Studies)	51

F. Group Interaction Problem--Selecting a New Principal	29
G. Test of Background Knowledge	40

TABLE III (continued)

H. Other Jefferson Materials Used	Frequency of Use (Out of 64 Possible)
1. Hemphill, Griffiths' book, "Administrative Performance and Personality"	2
2. Luncheon Talk by Jefferson Councilman	2
3. Staff Pictures	2
4. X-Tape Problems	1
5. Jefferson Secondary Materials	1
6. P.T.A. Speech (on tape) and Written Article for Paper	1

TABLE IV
NON-JEFFERSON MATERIALS USED

	Frequency of Use (Out of 55 Possible)[a]
A. Outside Materials Used	
1. Original Simulation Materials (Complete Sets)	12
2. Original Items Used with Jefferson In-Basket and Background	17
3. Original Problem Materials Used with Jefferson	16
4. Use of Outside Films with Jefferson	32
5. Use of Outside Cases (Some Original)	27
6. Use of Other Problem Material (Role Plays, etc.)	26
B. Films Used with Simulation	
1. The Conference	27
2. Wattsie	17
3. Production 5118	4
4. Point of Decision	3
5. Eye of the Beholder	3
6. All I Need is a Conference	2
(Eight other films were used only once.)	
C. Sources of Cases Used with Simulation	
1. Miscellaneous UCEA Cases (6 Titles)	12
2. *Educational Administration: Cases and Concepts*, Sargent and Belisle	7
3. Capitol City (UCEA on Tape)	3
4. *Human Relations in School Administration*, Griffiths	3
5. *Administrative Relationship*, Culbertson, Jacobson, and Reller	1
6. *Educational Decision: A Casebook*, Hodgkinson	1
7. Miscellaneous Original Cases	6
D. Other Non-Jefferson Materials Used	
1. Professor-Constructed Problems	8
2. Taped Lectures (Most from UCEA)	7
3. Outside Readings and Conceptual Background Material	6
4. Shady Acres In-Basket	4
5. Role Playing Problems	4
6. Additional Interruptions (One by Phone Hook-up)	3
7. Skill Sessions (Research Techniques and Group Dynamics)	2
8. School Survey Studies	1

[a] Only 55 out of 83 answered this question.

connection with Jefferson materials. That the use of additional materials was apparently necessary or desirable may well be regarded as a weakness. The fact that it was possible to correlate so many diverse elements into one experience may be a strength. Both possibilities will be discussed in the appraisal of strengths and weaknesses.

The most frequently used additional piece of material was the film-case, "The Conference," and the next was the film-case, "Wattsie." Both are UCEA-produced films and have been demonstrated at UCEA institutes. Although no one title clearly predominated as in films, UCEA-developed cases were also frequently used. These cases were often displayed, if not demonstrated, at UCEA institutes. Other sources of cases were several casebooks in school administration and several cases devised by the professors themselves. Realistic problems, in which students had to prepare a written report to a school board or superintendent from the data given, were the most frequently reported original materials devised by professors. Several others mentioned structured role plays they had developed to use with simulation materials.

Although no great number of persons used any one type of other added material, the variety of problems and input methods used by thirty-three different professors is indicative of some need for added types of materials.

Methods Used in Simulation

If flexibility and variety were evident in the materials used during simulation experiences, they were even more pronounced in the range of methods utilized with the materials. Questionnaire results indicated that most professors employed many methods: a median of thirteen methods for the eighty-one responding to this question, with a range of from one to twenty-one methods reported by one person.

Discussion was the most used single technique, especially involving the entire group or very small groups. Lectures for content input were also popular, often by guest professors in the behavioral science disciplines or by prominent administrators in the field. But the difference in emphasis in this type of teaching is more pronounced when one compares the frequency of role playing (96) with that of written assignments (80), oral reports by individuals or groups (71), and tests (56), as shown in Table V.

The methods of procedure after each In-Basket problem session were similarly characterized by an emphasis upon discussion, with flexibility and variety evident. Further, several techniques used emphasized the absence of a single "correct" response to any one item by delineating the important factors in each problem, the different reactions of participants, and possible consequence to each action. This was done most often in discussions, but also by scoring for style, tabulation of responses, role playing, and self-scoring by students, as tabulated in Table VI. However, eight professors still used instructor rating of responses and four others developed a rating scale by which responses were scored. Although these followed discussion sessions, they appear to impose a more structured situation than other methods of following In-Baskets might have done.

The infrequent use of tests or out-of-class assignments, and the fact that only twenty-six out of sixty-three utilized the simulation

TABLE V

TEACHING METHODS USED IN SIMULATION

	Frequency of Use (Out of 82 Possible)[a]
A. Teacher-Pupil Interaction	
1. Total Group Discussion	77
2. Lecture by Professor	71
3. Guest Lecture	54
4. Unstructured Role Playing	53
5. Small Group Discussion (8 or less)	47
6. Pre-structured Role Playing	43
7. Reports by Sub-Groups	37
8. Reports by Individuals	34
9. Large Sub-Group Discussion (more than 8, less than total)	33
10. Brainstorming (Free Flow Discussion)	28
11. Visits to Actual Schools	21
B. Audio-Visual Aids Used	
1. Tape Recordings	65
2. Films	63
3. Filmstrip	55
4. Overhead Projector	46
5. Slides	18
6. Opaque Projector	15
7. Other (Flannelgraph, Chalkboard, Magnetic Charts)	8
C. Individual Assignments	
1. Individual Study Periods	51
2. Written Assignments Outside Sessions	47
3. Written Assignments in Sessions	33
D. Evaluation Methods	
1. Opinion Responses and Reactions to Simulation	65
2. Objective Tests	29
3. Essay Exams	27

[a] Eighty-two out of 83 answered this question.

TABLE VI

METHODS OF FOLLOW-UP ON IN-BASKET ITEMS

	Frequency of Use (Out of 59 Possible)[a]
1. Open Discussion by Entire Group	52
2. Instructor Evaluation of Responses	8
3. Lecture on Types of Behavior Shown	7
4. Individual Discussion with Professors	6
5. Discussion in Small Groups	6
6. Scoring for Administrative Style (D.C.S. Study)	6
7. Role Playing Reactions to Items	6
8. Items Scored by Own Rating Scale	4
9. Participants Scored Self on Items	4
10. Types of Responses Tabulated but not Scored	2
11. Items not Followed by any Specific Activity	2
12. Field Trip	1
13. Branching (Feedback of New Items in Response to First Item Answers)	1
14. Written Report to Follow-Up Responses	1
15. Written Test Over In-Basket Items	1

[a] Fifty-nine out of 83 answered this question.

experience as a basis for grading participants further differentiates the simulation experience from the usual graduate class. Criteria for grades given are listed in Table VII.

When one quickly scans Tables III, IV, V, VI, and VII one is impressed not only with the sheer mass of materials and techniques used and by their variety, but also by the indication of teacher planning time involved and of the expense in time and money to gather the materials and equipment listed.

Format of Simulation Experiences

Although UCEA recommends a two or three week workshop of full day involvement (sixty-ninety hours),[1] it is apparent that only a minority has followed that advice. Regular classes were the most frequent format within which simulation was used, often for only six to eight hours. Workshops have been used by a total of forty-three persons (forty-seven, if one to three day situations can be properly termed a workshop). There is no clear pattern for total time that simulation has been used within regular classes, but it is clear that longer amounts of time (over forty hours) have been preferred in the workshop format.

As reported in Table VIII, about one-third of the simulation experiences reported in this survey limited participation to one specific type of administrator, and only half of those were limited

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[1] Glenn Immegart, "The Use of Simulated Materials in Eight Universities," The Instructional Uses of Simulation in the Preparation of School Administrators (Columbus, Ohio: UCEA, 1962), pp. 9-10.

TABLE VII

CRITERIA FOR GRADES IN SIMULATION EXPERIENCE

		Frequency of Use (Out of 64 Possible)[a]
1.	No Grades Given--Not a Valid Procedure with Simulation	20
2.	Multiple Factors Considered--Including Class Participation and Test	17
3.	Faculty Observers Grade on Overall Basis (Emphasizing Beliefs, Participation)	9
4.	All Given Same Grade (B or Pass)	8
5.	Grading on Other Parts of Course, Not on Simulation Participation	8
6.	Instructor Gives Grade on Global, General Impression	6
7.	Self Evaluation	2

[a] Sixty-four out of 83 answered the question.

TABLE VIII

FORMAT, PARTICIPANTS, AND TOTAL TIME OF SIMULATION EXPERIENCES

A. Format of Simulation Experiences Number Responding - 82[a]	Frequency[b]
1. Regular Classes	48
2. Graduate Seminars	18
3. Workshop (3 week)	19
4. Workshop (2 week)	19
5. Workshop (1 week)	17
6. Short Workshops (1, 2 or 3 day)	4
7. Longer Workshops (4, 5 and 9 week, half days)	3
8. Summer Session Block-of-Time	3

B. Total Time in Simulation Experience (Class Format) Number Responding - 38[a]	
1. Less Than 10 Hours	8
2. 10-19 Hours	7
3. 20-29 Hours	4
4. 30-39 Hours	7
5. 40-59 Hours	9
6. 60 Hours or More	4

C. Total Time in Simulation Experience (Workshop Format) Number Responding - 21[a]	
1. 60 Hours or More (Including one of 160 Hours)	9
2. 40-59 Hours	8
3. 30-39 Hours	3
4. 20-29 Hours	1
5. 10-19 Hours	1

D. Types of Participants in Simulation Experiences
Number Responding - 80[a]

Administrative Type	Trainee Only	Experienced Only	Mixed Experience
1. Elementary	13	19	42
2. Secondary	16	15	26
3. Central Office	2	16	13
4. Mixed Levels	5	10	30
5. Non-School Personnel	1	2	4

[a] Out of 83 questionnaires completed.

[b] Frequencies reported for A, Format, and D, Participants, exceed 82 and 80 since several professors reported more than one type of use.

to experienced administrators. Moreover, it was reported that most classes and workshops were open to enrollment by mixed groups of administrators, both as to level of administration and amount of training. Two interesting developments reported have been the use of Jefferson simulation materials for non-school personnel training, and the use of workshops as in-service training for the administrative personnel of only one school district or area. Comments made about participants indicate mixed feelings about the degree of background preparation and experience previously required for admission. This area will need careful examination for improvement in future policy.

Thirteen questionnaires referred to research studies about simulation by various persons. Letters were sent and phone calls made to the names cited but only two studies were actually located: a study of the eight week block-of-time summer simulation at the University of Nebraska by Wesley T. Shepard,[1] and a study of the relation of problem perception to problem solving by William H. Fern, which utilized the activities of a simulation workshop at the University of Chicago.[2] Many professors have gathered opinion-reaction samples from the participants in their simulation activities. UCEA has gathered samples of reaction in simulation and descriptions of its use, but not in a rigorous study. They have been searching for examples of use, more than definite conclusions.

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[1] Wesley T. Shepard, "A Study of Educational Administration 250, Principles and Processes of Educational Administration," (unpublished Doctoral dissertation, The University of Nebraska, 1964).

[2] William H. Fern, "Aspects of Problem Perception and Problem Solving in Educational Administration," (The University of Chicago, 1961).

Assessments of the worth of simulation experiences, as measured by the opinions of both professor-directors and participants, and including reviews of the UCEA reports mentioned above, will be discussed in Chapter IV.

CHAPTER IV

AN ASSESSMENT OF THE SIMULATION TECHNIQUE

Introduction

Both the desirability and difficulty of a thorough evaluation of simulation and its effectiveness in teaching school administrators have been noted by respondents to this survey. Due to the numerous intangible factors in operation and the lack of funds and a stable population with which to work, no one has yet been able to establish either the techniques or the sustained follow-through necessary to get objective and reliable data. Nevertheless, saying that evaluation is difficult in a sense begs the issue. A start must be made, if only to establish some of the directions in which others may look with greater rigor.

For these reasons, it was decided to undertake an assessment of the simulation technique from several different approaches which did not involve the controls necessary for a true evaluation. Those avenues chosen to be explored were six in number:

1. a summary of what has been written about the value of simulation, its strengths and its weaknesses;

2. a report of the opinions of those professors who have actually used simulation in instruction;

3. a summary of the post-experience reactions of participants as gathered by the directors of those experiences;

4. appraisals by participants in several types of simulation

experiences in direct response to an opinionnaire;

5. a report of the findings of the presently available studies of simulation; and

6. a comparison of the reports of how simulation has been used with the suggested criteria for techniques in teaching school administration.

Appraisals by Educational Associations

UCEA, 1960

The first analysis of simulation, as it pertained to training school administrators, was made by the UCEA in 1960.[1] This initial publication contained a description and an assessment of three experimental workshops by their directors: The University of Chicago by Luvern Cunningham; Stanford University by Hollis Moore, Sr. and Francis Trusty; and Teachers College, Columbia University, by Harold McNally and Richard Wynn. The pamphlet concluded with an overall critique by Jack Culbertson of UCEA.

The University of Chicago. The most thorough analysis of an experimental workshop was at the University of Chicago. Four types of analysis were used: Two professors of education, not involved in the workshop, served as "outside" evaluators; a pre-test and a post-test of concepts of administration was given; a joint student-staff appraisal session was held on the final day; and a follow-up study of participants was made six months after the session ended.[1] All four methods indicated that both participants and the staff felt the technique had been extremely successful in terms of attaining the purposes sought. Cunningham wrote, "apparently the workshop was a situation in which personal needs and professional responsibilities could be related in meaningful ways."[2] However, one participant objected to the second In-Basket containing items that did not reflect actions taken to improve the situations found in the first In-Basket.[3] The specific ways in which the observers felt that simulation had been successful were: 1) students had changed from a static to a dynamic concept of personal relationships, 2) the term morale appeared to take on a new meaning for them, 3) there was evidence of an increased emphasis on self-understanding, and 4) there was a tendency of students to see things in their broader context.[4] The follow-up study six months later tended to corroborate the earlier appraisals, and students felt ". . . that they had modified their methods of solving problems on the job."[5]

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960).

Some of the specific strengths listed were the ability to apply theories of educational administration in practice; the background material contained much new information about a school system as an example of what could be learned; possible ways to evaluate both administrative behavior and teachers in action were explored; and new concepts about personality and democratic process were introduced.[6]

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 15.

[2] Ibid., p. 16. [3] Ibid. [4] Ibid., pp. 17-18.

[5] Ibid. [6] Ibid., p. 17.

In-Basket problem solving experiences had been particularly valuable.[1]

On an individual basis Cunningham raised questions about the proper amount of background material to use, the use of simulation in regular courses, and whether prediction of success in school administration of participants could be one outcome of simulation use.

Stanford University. While the directors of the Stanford workshop had not used similarly detailed appraisal techniques, their feelings about their workshop were much the same as at Chicago. They felt the materials had great promise, especially in terms of introducing ". . . the actual process of administering, not alone knowledge about administration. . . ."[2] Another advantage emphasized was the opportunity to observe students reacting under stress, describing "not only what one would do, but how one would go about it."[3] Professors could watch the consistency of such administrative behavior. The participants were reportedly enthusiastic also, especially about the detailed background and the practical problems in the In-Baskets. However, they were critical of the quality of audio-visual materials.[4]

Teachers College, Columbia University. The simulation experience was planned for a more regular class format at Teachers College, and was analyzed in three ways: the staff made critiques after each weekly session, two written reactionnaires were completed by the participants, and participants had an oral evaluation session with the staff at the final meeting.[1] ". . . Both the staff and participants were enthusiastic about the use of simulation for instructional purposes. . . ."[2] Participants commented especially on the amount of planning which had been done, the effective use of role playing and discussion, the presentation on decision-making, and the broadening effect of discussing various approaches to problems. However, both the staff and participants were critical about the regular class format and did not feel it was effective. They disliked the test-oriented directions and construction of the In-Baskets and the workload imposed by the schedule used in the test format. In-Baskets designed for testing were too long and not properly focused for teaching. Several suggestions were made to avoid these difficulties in future use of simulation.[3]

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 18.

[2] Ibid., p. 26. [3] Ibid., p. 27. [4] Ibid., p. 26.

A Critique. Culbertson's final essay is an overall critique of the simulation technique in which he reminds the reader that despite the enthusiasm of both teachers and students, caution is needed since often mere newness and novelty cause such a reaction.[4] He anticipates a scientific evaluation of the technique as necessary to better understanding, and he then summarized the strengths, limitations and issues in the use of simulated materials as seen at that time. The following is a brief summary of the strengths of simulation:

1. Actually experiencing problem situations produces transfer of skills and knowledge to the job.

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 33.

[2] Ibid., p. 37. [3] Ibid., pp. 35-37. [4] Ibid., p. 39.

2. Comprehensiveness and rich detail produces the "ability to see the whole picture--each problem in its broader context."[1]

3. Simulated materials enable the instructor to more effectively relate theory and practical problems.

4. Students have better opportunities to gain insight into the relationship of ideals and constraints.

5. More versatility of approach is possible.

6. The development of insights about one's self and one's own behavior helps each student to assess his competencies.

7. The student is able to develop a framework of knowledge of the behavioral sciences useful to interpret present-day society.

8. Simulated materials lend themselves to the development of appropriate administrative skills, especially in decision-making and communication.

9. Simulation involves the student in real problems, but under control by the instructor.

Culbertson states that the major limitations are these:

1. The materials cannot substitute for an effective teacher, nor overcome poor teaching.

2. The materials are oriented more toward management than leadership training.

3. Only one set of comprehensive materials representing one type of school situation exists.

4. The cost of the materials is more expensive than con-

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[1] The University Council for Educational Administration, Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), p. 40.

ventional instruction.

5. There are few professors with experience in using the materials and fewer reports of experience with the teaching technique.

Culbertson concludes by stating some of the unresolved issues which need answers to improve the use of simulation as an instructional tool:

1. To what extent should related readings in books and articles be used?

2. When should concepts of administration be introduced into the schedule of learning?

3. What time format produces highest motivation and involvement?

4. To what extent is behavior during simulation transferable to the job?

5. Does the use of these materials teach only about average practice in a district of 1958, and not look forward?

UCEA, 1962

In 1962 the UCEA issued a booklet, The Instructional Uses of Simulation in the Preparation of School Administrators, to aid professors in planning their own use of simulation.[1] The booklet contains examples of purposes, schedules, and activities which various professors have used, but the bulk of the material is repeated from the earlier publication quoted above. As a result, most of the material appraising the effectiveness of simulation is also repeated with some additions in the newer publication. To the list of limitations and problems is added the complaint of inadequate time by several professors, indicating a need for both longer sessions and more total hours. Problems in scoring In-Baskets, with the films, inadequate physical space, and having both experienced and inexperienced participants at the same time are also mentioned. Perhaps more serious are problems with the materials themselves: a lack of flexibility and feedback within the system, a problem of how to focus on one or more specific problem areas, and the loss of self-confidence by participants, especially among inexperienced participants. Finally, there is a definite need for more than one professor to handle a workshop adequately.[1] Instructional, secretarial, and other assistance is needed to perform all of the activities properly. Immegart comments, "One of the most encouraging aspects of the response . . . is in regard to the reported weaknesses of such instruction. Weaknesses were generally of a technical or planning nature rather than in the nature of the simulated materials as such."[2] He implies that technical and planning weaknesses are less serious or easier to correct than others inherent in the basic nature of the materials.

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[1] The University Council for Educational Administration, The Instructional Uses of Simulation in the Preparation of School Administrators (Columbus, Ohio: The University Council for Educational Administration, 1962).

There are not as many additions to the list of strengths. The opportunity of comparing administrative behavior of participants, and developing skill in situational analysis are cited as major strengths. There are more comments about the ability of simulation to creat ego-involvement of students. The use of a common experience, not familiar to any student, is also cited as an outgrowth of the detailed background materials.

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[1] Glenn Immegart, "The Use of Simulated Materials in Eight Universities," *The Instructional Uses of Simulation in the Preparation of School Administrators* (Columbus, Ohio: The University Council for Educational Administration, 1962).

[2] *Ibid.*, p. 11.

NCPEA, 1964

In August of 1963, the NCPEA annual conference dealt with "Strategies in the Preparation of School Administrators."[1] The report of that conference evaluates simulation as one of the teaching "strategies" explored there. The analysis of its potential, its strengths, and the criticism of its weaknesses repeats many of the arguments discussed in the two publications cited above. However, even greater stress is placed upon the question of cost in time and money. "At what point does the cost of realism outweigh the educational value gained?"[2] Similarly, cost in professional planning time and in creating the materials tend "to let the materials solidify and crystalize instruction."[3]

But the strengths have obvious appeal, especially the mass of data in raw form permitting the student to structure it as he needs and the degree of involvement the technique produces. Both aspects are appraised as being much closer to the total context of a real school than are other teaching strategies, and hence they produce broader perspectives of school administration. The versatility, the motivational and introspective aspects of simulation are also emphasized, but with some misgivings about the price they require. Thomas closes his analysis by stating that simulation's "versatility is a function of its complexity. Whereas the complexity makes it quite flexible, in terms of learning outcomes, it makes its strategy less flexible in terms of time-place arrangements that are conducive to its best use."[1]

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 41.

[2] Ibid., p. 38. [3] Ibid., p. 39.

Opinions of Professors of Educational Administration

The first questionnaire (Q.#1) contained an open-ended question asking the professor to state his overall opinion of the value of simulation, especially those elements found most effective and those limitations found. One of the problems in reporting such data from an open-ended questionnaire is to establish categories which accurately reflect the comments recorded. Even more difficult is the task of conveying the emotions and attitudes which seem apparent.

Since it is impossible to reproduce all of the responses to this open-ended question but desirable to report the information and attitudes they convey, an attempt has been made to quote examples of these responses in Appendix D in about the proportion they occur in the total, to illustrate both typical and divergent opinions.

Professors who have used simulation reported a wide variety of both strengths and weaknesses which they saw after use. Most of the strengths and weaknesses cited by the NCPEA and UCEA above were also reported here but with some difference in emphasis. The complete list may be found in Table IX.

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[1] Michael P. Thomas, Jr., Strategies in the Preparation of School Administrators, Report of the Seventeenth Annual Meeting of the National Conference of Professors of Educational Administration (Lincoln, Nebraska: Teachers College, The University of Nebraska, 1964), p. 40.

TABLE IX

STRENGTHS OF SIMULATION IN THE OPINION OF PROFESSORS DIRECTING SIMULATION EXPERIENCES, AS REPORTED IN QUESTIONNAIRE #1

	Frequency
1. Pre-administrative Service, to Help Begin Training	28
2. Role Playing	27
3. Common Background, All Respond to Same Situational Factors	24
4. No Pre-known, Absolute Correct Solutions--Shows Variety of Responses Possible	17
5. Total Complex Background--Student Sorts Out Relevant from Non-relevant	15
6. In-Service Training for Experienced Administrators	13
7. Discussions of In-Basket Problems and Responses	11
8. Emphasis and Tie-in with Behavioral Science	9
9. Realism of Materials Promoted Involvement of Students	7
10. Motivation and Interest High on Practical Problems Leads into Theory Study	7
11. Flexibility and Variability of Materials	4
12. Kinescope Study of Teachers and Discussion Following	4
13. Use of D.C.S. Analysis of Administrative Behavior Styles	3
14. Analysis of Administrative Process to Fit Situation	3
15. Provide Supervised Experience with Control (Mistakes don't Hurt Others)	3
16. Other Strengths Mentioned Only Once Each	6
Total Strengths Reported	181

The greatest strength in terms of frequency of listing (28) was its use in pre-service training in administration. However, thirteen professors stated it was best for in-service training of experienced administrators. Neither group need be wrong, but side comments indicate that there were some differences in purposes and techniques of use for the two groups. It would appear that pre-service participants had their In-Basket responses evaluated by the staff or were more often told what are the "best" responses than were experienced administrators. The reaction of participants to this fact will be reported in a later section of this chapter.

Role playing is not a specified activity in UCEA recommendations and no role plays are included in the materials, but it is second in the list of strengths. One could speculate about the degree of realism that prompts role playing, or about the types of problem-items that lend themselves to playing the roles to aid in determining consequences. However, the reasons were not stated in the responses and hence are not self-evident. What is stated by professors is that students were highly motivated to play roles which arose out of responses to In-Basket items.

Providing a common background so that all students are focusing on the same situation and not each on their own problems was listed almost as often (24 times) as role playing. Fifteen others listed the background as a strength because of its complexity which forces the student to sort out those relevant facts needed in a solution rather than using those given by the professor. When one adds these two frequencies, the total (39) would make the background materials by far the greatest single strength.

Many professors commented about the desire to get away from the one correct "textbook" answer as a step toward reality and stated that simulation helped make this possible. The variety of responses possible (mentioned 17 times) was closely related to the opportunity to discuss these In-Basket responses (11). Again, the combined total (28) would place discussion of the variety of responses near the top of the list.

The opportunity for "tie-in" between the problem situations in the In-Baskets and the behavioral sciences was listed as a strength nine times. This may merely be another way of emphasizing the adaptability of the materials, since others emphasize that beginning with practical problems leads into study of theory.

Several of the remaining strengths listed refer to the materials: their realism, the motivation they promote, and their flexibility.

Although mentioned only four times, those four were enthusiastic and emphatic about the flexibility of simulation in terms of variety of materials available, techniques to use with them, and purposes which can be served. The kinescopes were also singled out for special praise, even when used alone and apart from the other materials.

Another indication of professorial enthusiasm is the fact that there were half again as many strengths reported as weaknesses. More to the point, perhaps, is that whereas the list of strengths refers primarily to student-learning and behavior (role playing, variety of responses possible, discussions of In-Baskets, and tie-in to behavioral sciences), the list of weaknesses shown in Table X is predominantly a catalogue of technical problems (tapes and films of poor quality, errors in background material, materials get out of date, not enough time, or

TABLE X

WEAKNESSES AND LIMITATIONS OF SIMULATION IN THE OPINION OF PROFESSORS DIRECTING SIMULATION EXPERIENCES, AS REPORTED IN QUESTIONNAIRE #1

		Frequency
1.	Simulation Reinforces the Stereotype of Administration as a Public Relations Manipulator	14
2.	The Tapes have a Poor Quality Sound Reproduction	12
3.	Simulation is still not as Real as Life (or as the Internship)	12
4.	The Films are of Poor Quality Visually	11
5.	The Materials are Useful Only if the Instructor is Knowledgeable in Behavioral Science Concepts	11
6.	Simulation cannot stand Alone, it has Value only as Part of a Total Program	10
7.	There is not enough Data Available to Interpret Items nor of Other Helps for the Teacher	10
8.	There are Many Technical Errors in the Materials	9
9.	Materials are Limited in Scope--need Variety and Expansion	6
10.	The Volume and Detail of Background Material is too much to Handle	5
11.	There is a Need for More Feedback and Branching in Items	4
12.	Time is too Short for Effective Use of the Materials	4
13.	The Materials get out of date quickly (Much is Already Obsolete)	3
14.	Simulation Greatly Increases the Teachers Work Load	3
15.	Difficult to Keep Oriented to "Jefferson" in Regular Class Format	3
16.	The Materials are too Expensive	2
17.	Other Weaknesses Mentioned Once Each	4
	Total Weaknesses Reported	120

difficult to keep oriented to materials in regular class format).

Opinions about strengths and weaknesses illustrate the old adage of "one man's meat. . . ." While twenty-four professors cite the common background framework as a strength, and fifteen others mention the complexity of the background as a major strength, six report that the background material is too large to handle. Four state there is a need for more branching and feedback from item responses, and three others state that the materials already increase professional workload too much. Three state that the materials are now too expensive and three others that it gets out of date quickly and needs revision. While these categories are not mutually exclusive, they do point out that there is some disagreement about the weaknesses inherent in the materials. In fact, several professors specifically state that, while not popular with students, the bulk and detail of the background and the time pressure on working the In-Baskets are essential to produce the realism, involvement, and some of the basic learning that the students do appreciate and rate highly. Without these the strengths based on discussions of alternate responses to In-Basket items and the lack of a single "correct" response might not have been possible.

In addition to the technical weaknesses cited above, respondents felt that there were some weaknesses inherent in both the materials and in methods of using them. Perhaps most serious, and the one mentioned most frequently (14 out of 83 times), is the charge that simulation perpetuates the stereotype of the school administrator as a "manager, a manipulator or a public relations man." Another saw this weakness as arising from the fact that most problems are presented in written form to the administrator seated at his desk, whereas in reality most of them would appear during a personal contact. The weakness of the type of administrative behavior cued is made more severe by the technical problem of keeping the materials viable and up-to-date. If not, the image would not only be of manipulation, but of manipulation into out-dated practices.

Twelve persons commented that simulation is still not as real as life or an internship. This is a fairly obvious fact but omits the compensating strength stated emphatically in one reply: "Simulation provides an opportunity for supervised experience with some control. In this respect I feel that it has advantages over the internship. While the internship is more live, it cannot be supervised or controlled in the sense that a simulation can." Two other professors support experience with control as a strength.

Other weaknesses which appear to have the same type of surface validity as the lack of reality are the fact that simulation must be part of a total, planned program and cannot stand alone, and that it is useful only to the degree that the instructor is competent and trained in the behavioral science concepts. There were several related comments referring to the professor-director: his competence, workload, and assistance. Although perhaps less vital, the related weaknesses of instructor workload, the lack of data to aid the teacher in giving specific interpretations of items, and the lack of teacher helps to short-cut planning and set-up time pose practical problems of initiating simulation with inexperienced and/or overworked professors.

What is still unknown after this cataloguing of weaknesses is the degree to which they negatively affect instruction and learning, how easy the defects can be corrected or compensated for, and to what degree they are really weaknesses. This latter question may be answered in part by the reaction of participants. The other two questions will be dealt with in the final chapter.

Almost regardless of the professor's own reported reaction to simulation or of his specific format for use, he reported enthusiastic response from the student participants. Some of the more specific comments were in answer to the question about student follow-up, which was apparently misleading and hence misunderstood. Thirteen professors included such a voluntary comment, of which the following is typical. "Students were asked to evaluate the simulated materials workshop and the response was unanimous that the course was excellent. Many of the students wrote that this was the best education course they had ever taken." Other comments may be found in Appendix D.

In an attempt to get more objective data directly from the participants, letters were sent to sixteen professors who were chosen for geographic distribution, simulation format used previously, and willingness to cooperate as evidenced by the degree of response on the initial two questionnaires. These professors were asked to send a copy of post-simulation reactions by participants, if one had been compiled, or the names and addresses of recent participants. It was specifically stated that these participants would be sent a brief opinionnaire[1] regarding their simulation experience and that copies of the results would be.sent to the professor. Six lists of participants were received from this request and opinionnaires sent to them. Eight copies of appraisals gathered by professors were also received. Participant reactions derived from these two methods, the direct opinionnaire and professor tabulations, will be reported in this next part of Chapter IV.

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[1] Copies of these letters and the opinionnaire may be found in Appendix B.

Reports of Post-Simulation Reactions by Professors

Most of the reports from the eight institutions summarizing the reactions of participants took the form of an objective evaluation of the various activities during a simulation workshop, often in combination with open-ended responses to which the student had been asked to make an overall judgment and/or list strengths, weaknesses, and suggestions for improvement. Exact comparisons are not possible since the same questions were not asked at each institution, nor were they tabulated and reported in the same form. Completed appraisals by participants were given directly to the workshop staff and so these original reactions might reflect more enthusiasm than was felt later on. However, the summary shows only the comparative ranking of the various activities within each workshop as determined by frequency of open-ended mention and/or numerical summaries of scores assigned in the case of check lists. It does not attempt a score indicating degree of acceptance by participants or of their enthusiasm.

Comparisons of these institutions, the workshops or their activities are not intended; indeed, it would be impossible from the data available. What is possible is an overview of participant reaction to and preference for certain activities experienced during simulation workshops at eight institutions over a five-year period. If one considers the variations possible under such circumstances, one would not be surprised to find little or nothing in common among them. Yet several things do stand out from the comparison tabulated in Table XI.

It is apparent that the background and In-Basket materials, the sessions of problem-solving with In-Basket materials, and the following discussions by the participants were the most uniformly used, and they were also the most frequently ranked as high in value. While overall instructional procedures by the staff were mentioned often and were highly rated, lectures and formal presentations were not valued as much. The direct comments by participants which are available are enthusiastic in their appreciation of the degree of freedom they felt, the stimulation by the instructional staff, and the high amount of involvement they experienced. Apparently these account for the high rating of overall instructional procedures. Although formal presentations ranked about fifth on an overall tabulation, several schools reported presentations on decision-making and communication as ranking as high as first or second in value to participants.

Considering the high degree of response to the Jefferson materials themselves (and all of these twelve workshops utilized these simulation materials), it is interesting to note that all but two of the schools reported that participants placed a high value on non-Jefferson films and cases that were utilized in the workshop. Activities relating more directly to individual activity (reading assignments, self-evaluation, individual conferences with a professor, and scoring of individual In-Baskets) were not mentioned as frequently nor as high in value as were group actions.

TABLE XI

RANKINGS OF ACTIVITIES PREFERRED IN SIMULATION WORKSHOPS AND CLASSES BY PARTICIPANTS, AS GATHERED AND REPORTED BY SIMULATION DIRECTORS

Activities	School, by Code Letter, and Year of Simulation Use											
	A 1964	B 1962	C 1964	D 1960	E 1961	F 1964	G 1961	G 1962	G 1963	H 1962	H 1963	H 1964
Overall Instructional Procedures	..	2	3	..	1	1	3	3	3	..	7	4
Background												
Materials	2	1	6	6	2	..	2	4	1	1	3	5
Methods of Study	4	2	2	7	..	..	..	..	..	9	..	9
Film and Filmstrip	5	2	9	..	6	..	..	..	..	5	..	..
Tapes	6	2	11	..	5	..	..	..	..	5	..	..
Kinescopes	7	..	8	..	3	..	..	..	..	..	..	..
In-Baskets												
Problem-Solving	1	3	3	2	2	2	1	1	5	2	4	2
Analysis and Discussion . . .	..	5	4	[illegible]	2	1	5	2	10	3	1	3
Scoring and Evaluation . . .	..	5	..	9	..	..	..	..	..	..	..	..
Tapes and Other Related Problems	4	..	10	8	3	..	10	10	9	..	..	..
Role Playing	3	..	5	4	..	4	8	9	6	7	2	8
Lectures and Presentations . .	6	..	..	3	..	5	..	..	..	5	4	3
Outside Materials												
Films	5	..	..	5	..	2	..	..	..	4	..	3
Cases	4	..	1	..	..	..	9	6	4	..	..	10
Student Activities												
Assigned Readings	..	..	7	..	4	..	..	..	..	..	..	..
Conferences with Professor .	..	..	6	..	..	..	7	8	8	..	..	..
Self-evaluation	..	..	9	..	..	3	6	5	7	..	..	..
Panels, Group Work	..	..	..	..	..	..	4	7	2	10	..	..
Reality, Involvement in Experience	..	4	..	..	..	..	..	..	..	..	6	7

Role playing was mentioned by participants at ten of the twelve workshops but was not rated as highly as most of the other activities. Finally, special problem assignments were included by over half of the schools but were rated as low in value at all but two institutions. These included both those arising from the Jefferson tapes and technical ones unique to a given school, such as preparing a budget or salary schedule.

Although the overall picture described by these reports of workshop value is admittedly tenuous, it does appear that the opinions of the professor-users cited above under Strengths and Weaknesses are supported from the viewpoint of the participants also. Generally the simulation materials and the activities which grew from them were highly valued. Related films and cases apparently were well accepted, as were conceptual presentations built upon some of the problems discussed. The variation of activities used or emphasized by different schools is apparent, and the group activities had more impact than did individual assignments and contacts. Scoring, self-evaluation, and reading assignments (the most nearly like typical graduate activities of instruction) were not rated nearly as valuable as role playing, In-Basket work, and discussion of In-Basket responses.

Assessments by Participants

In order to get reactions directly but anonymously from participants, opinionnaires were sent to 304 names submitted as participants at two institutions using simulation in regular classes (161 participants in ten classes) and four using the workshop format (143 participants in seven workshops). A total of 198 completed opinionnaires were returned, 96 from regular class participants (60 per cent) and

102 from workshop participants (71 per cent). Both regular classes and workshops were represented by returns from as far back as 1961 and as recent as 1964. An initial impression that there were differences in responses from participants in regular classes as compared to those in workshops was confirmed by tabulations.[1] Therefore, data is reported separately for these groups in the remaining tables of this chapter. Those having experienced simulation as part of a regular class (hereafter referred to as the Regular Class group) were composed of a substantially different group of persons, as judged by their background, than were those who participated in workshops (hereafter referred to as the Workshop Group).

The Regular Class was 93 per cent male and 7 per cent female, while the Workshop had almost triple this female proportion, or 18 per cent female, and 82 per cent male as shown in Table XII. The Regular Class was much younger: 6 per cent under age twenty-five and 62 per cent age twenty-six to thirty-five compared to none under twenty-five in the Workshop and only 23 per cent from twenty-six to thirth-five. The Workshop group, on the other hand had 35 per cent aged forty-six and older, while the Regular Class had only 7 per cent who were over forty-six years old. As might be expected from the above facts, the Regular Class also had had less teaching experience, less administrative experience, and fewer hours of administrative course-work.

More than 60 per cent of the Regular Class had had six or fewer

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[1] The tabulations by school may be found in Appendix D.

TABLE XII

BACKGROUND OF PARTICIPANTS IN SIMULATION EXPERIENCES WHO RESPONDED TO OPINIONNAIRE

Background	Participants				
	Regular Class		Work-shop		To-tal
	F[a]	%	F[a]	%	F[a]
Sex of Participants					
Male	87	93	80	82	167
Female	7	7	18	18	25
(Total Number Responding)	(94)		(98)		(192)
Age of Participants					
25 and Under	6	6	..	..	6
26-35	59	62	23	23	82
36-45	24	25	43	42	67
46 and over	7	7	36	35	43
(Total Number Responding)	(96)		(102)		(198)
Teaching Experience Prior to Simulation					
None	1	1	1	1	2
1-3 Years	30	31	17	17	47
4-6 Years	37	38	24	23	61
7-9 Years	12	13	17	17	29
10 Years and More	16	17	43	42	59
(Total Number Responding)	(96)		(102)		(198)
Administrative Experience Prior to Simulation					
None	54	56	9	9	63
1-2 Years	19	20	16	16	35
3-6 Years	16	17	22	21	38
7 Years and More	7	7	55	54	62
(Total Number Responding)	(96)		(102)		(198)
Number of Credit Hours in Administration Prior to Simulation Experience					
0-6 Hours	33	35	3	3	36
7-12 Hours	25	26	11	11	36
13-24 Hours	25	26	25	25	50
25-36 Hours	11	11	28	28	39
37-48 Hours	1	1	13	13	14
Over 48 Hours	1	1	20	20	21
(Total Number Responding)	(96)		(100)		(196)

[a] F stands for frequency.

years of teaching experience, two or fewer years of administrative experience, and twelve or fewer hours of courses in administration. In contrast, the Workshop group was precisely reversed and had 59 per cent or more with over six years of teaching experience, three years administrative experience, and over twenty-five credit hours in administrative courses.

It seems apparent that the Regular Class format is being used primarily as pre-service training for younger, male candidates with little experience, while the Workshops serve an older and more experienced segment of personnel, primarily now in-service as administrators. Only 9 per cent of the Workshop group did not have any administrative experience.

Due to the differences in format of simulation experience and the obvious discrepancy in makeup of participants in each group, it is difficult to determine the causes of diverse opinions held and reactions stated by participants. The contrast between pre-service and in-service training might have caused a difference in planning the purposes for the use of simulation and, hence, differences in methods and materials used. On the other hand, if the Regular Class format was established first, it would undoubtedly create some limitations and thereby necessitate certain techniques and materials to the exclusion of others. Or the differences might be due merely to the variations in age, experience and past training. Whatever the reasons for them, there were differences in the values placed on activities and on what was most and least helpful. Nevertheless, both groups rated their simulation experience very high (about halfway between Extremely and Somewhat Helpful in both cases) in terms of its personal value to them. Table XIII contains the specific tabulation of these responses. The Regular Class group was more dramatic in ranking simulation as compared to all other administrative training, with 52 per cent stating that it was the most helpful of any administrative training taken. Since 34 per cent of the total Regular Class had only taken from zero to six hours of prior work in administration, the 52 per cent might well be viewed with caution due to a lack of possible comparison. However, since a total of 88 per cent ranking it as better than most or higher for the Regular Class compared to 94 per cent ranking it similarly high from the Workshop Group (of which 86 per cent had more than twelve hours of training) the assessment of comparative worth may be an accurate representation of participant feeling in both groups.

Although the two groups both rank simulation high in value, they differ greatly as to its placement in the training sequence, with over 80 per cent in each group saying, in effect, "It is most effective at the point in training at which I took it." One might almost come to the conclusion that the responses to the question of placement are a more accurate representation of personal emotional commitment to the experience than they are of an objective judgment about when simulation offers most to the student. Perhaps both groups are right and it can be used with value in both pre-service and in-service training. Because of the lack of agreement on this point, no conclusions seem apparent.

The professors who responded to the initial questionnaire (Q.#1) included enough specific comments so that it was possible to get an approximation of how they would have answered these same three questions regarding the value of simulation and its placement in training programs.

TABLE XIII

SIMULATION APPRAISAL BY PARTICIPANTS AS REPORTED IN OPINIONNAIRE

Appraisals	Participants				
	Regular Class		Work-shop		To-tal
	F[a]	%	F[a]	%	F[a]
The Value of Simulation:					
Extremely Helpful	49	51	52	51	101
Somewhat	43	45	48	47	91
Of Little Help	3	3	2	2	5
Not Helpful at All	1	1	..	..	1
(Total Number Responding)	(96)		(102)		(198)
Value Compared to Other Administrative Training:					
Most Helpful of All	49	52	46	45	95
Better than Most, but not the Best	34	36	50	49	84
About the Same as Others	9	10	4	4	13
Not as Helpful as Most	1	1	2	2	3
Least Helpful of All	1	1	..	..	1
(Total Number Responding)	(94)		(102)		(196)
Place in Training Sequences Recommended:					
First, Before any Other Administrative Training	9	9	..	..	9
Early in the Sequence, After Some Administrative Training	40	42	13	13	53
Late in the Sequence, After Most Course Work	39	41	41	41	80
After Certification as Administrator or Employment as Administrator	8	8	45	46	53
(Total Number Responding)	(96)		(99)		(195)

[a] F = Frequency of responses.

In terms of its value to participants the distribution would be somewhat like this:

Extremely Helpful	51
Somewhat Helpful	25
Of Little Help	6
Not Helpful at All	1
Total indicating an opinion	83

With regard to its rank in comparison to other types of administrative training, the distribution, as judged by the open-end comments by professors on Q.#1, appears to be as follows:

Most Helpful of any Administrative Training	45
Better than Most, but not the Best	26
About the same as Most Others	8
Not as Helpful as Most	2
Least Helpful of All	1
Total indicating an opinion	82

Another comparison with the above data, in which Regular Class participants who are just beginning administrative training feel simulation should be used very early in the sequence of courses and experienced administrators in workshops feel it should come after certification and employment as an administrator, is the distribution of professorial opinion on placement of the simulation experience. (Methods of use at present are the Regular Class, used by forty-eight respondents, while thirty-nine used Workshops over one week in length, and fifteen used simulation in one week Workshops.) The sixty professors who reported comments which were specific enough to form a conclusion about their beliefs regarding best placement were distributed roughly in this manner:

Early in the sequence, but after some course work	24
Late in the sequence, after most course work (or in groups of mixed experience)	24
After certification or employment as an administrator . .	12

Apparently professors also believe in the manner in which they have used the experience themselves. However, there were several specific statements by professors who stated that although they had used it only once in a Regular Class, they would not do so again, but wanted longer blocks of time to use simulation more effectively.

The difference in responses by participants are much more pronounced in the open-ended sections of the opinionnaire. Both the Regular Class and Workshop groups mentioned doing the In-Baskets and other problems and then discussing and comparing the various reactions in various group activities as being most helpful now that they look back after an elapsed time of eight months or more. However, the Regular Class mentioned the work sessions much more often than did the Workshop group, and the Workshop group mentioned the post-In-Basket discussions much more frequently (78 per cent of all respondents).

Other outstanding activities mentioned as most helpful by the Regular Class more frequently than by the Workshop in Table XIV were the study of the detailed background materials, the films used in connection with simulation (both Jefferson and supplementary films), and the individual conference with the professor. They also cited an assortment of small specific, almost technical, details, such as learning about secretarial aids, how to remember names better, how to plan and organize the school day, and the instructor's demonstration of audio-visual equipment.

TABLE XIV

MOST HELPFUL SIMULATION EXPERIENCES, AS MENTIONED BY PARTICIPANTS IN RESPONSE TO OPINIONNAIRE

Most Helpful Simulation Experiences	Participants				
	Regular Class		Workshop		Total
	F^a	%	F^a	%	F^a
Student Involvement in Discussion Comparing In-Basket Responses	58	60	80	82	138
Working on In-Basket Materials (or Specific Problem Items)	49	51	41	40	90
Units on the Administrative Process, including Formal Presentations:					
Behavioral Sciences	1	1	12	12	13
Decision-Making	1	1	12	12	13
Staff Relations and Evaluation	3	3	16	16	19
Administrative Theory	1	1	6	6	7
Group Dynamics and Human Relations	..	..	9	9	9
Communication	..	..	8	8	8
PTA Talk and News Release	3	3	3	3	6
Assigned Readings	2	2	6	6	8
(Totals)	(11)		(72)		(83)
Professor Outstanding; Promoted Discussion; Presentation Good	11	11	22	22	33
Background Materials (especially Degree of Detail)	11	11	3	3	14
Films	7	7	5	5	12
Role Playing	..	..	12	12	12
Informality, Arrangements; and Free Time Discussion	2	2	8	8	10
Small Specific Technical Details	5	5	3	3	8
Guest Lecturer Excellent	..	..	7	7	7
Learning about Self (Analysis of Personality and Administrative Behavior)	3	3	3	3	6
Research Emphasis	..	..	4	4	4
Individual Personal Critique by Professor	4	4	..	..	4
Broadened Horizons of what Administrator Needs to Know	2	2	2	2	4
Brainstorming Sessions	..	..	3	3	3
Frequency Totals	163		265		428

[a] F = Frequency of open-ended responses from 96 Regular Class and 102 Workshop participants.

The total picture is one of primary concern for the study and problem sessions--almost a stereotype of the young eager student wanting to do the problem and then be told the right answer. (One respondent did prefer the "sessions concerning the correct answers to student problems . . . and to teacher problems." Emphasis supplied by the investigator.)

The responses of the Workshop group as to what were most helpful present an entirely different picture; they not only preferred the discussion of In-Baskets over the actual work sessions by a two to one ratio, they also listed an assortment of theory presentations six times as often as did the Regular Classes. Not only were they the only ones to mention role playing, brainstorming, and a research emphasis as being most helpful, they also liked guest lectures and mention the professor-director as being outstanding (especially in promoting discussion and informality) twice as often as did the Regular Class. They also stated that free time discussions about simulation were helpful more often. Here, the picture is of a group whose sessions capitalized upon their past experience; so the greatest values came in discussions, both in group and in free time, and in role playing. The appreciation of presentation and of various conceptual approaches to administration (with a "research emphasis") may have come from being motivated to find out "Why?" at the other sessions, or from the ability to build on past training and experience. Whatever the reason, the picture is far different from that which one draws from the comments of Regular Class participants.

The free responses about what was least helpful or of negative value cited in Table XV strongly reinforce the above picture. The Regular Class did not like having to do In-Baskets on their own

TABLE XV

LEAST HELPFUL SIMULATION EXPERIENCES, AS MENTIONED BY PARTICIPANTS IN RESPONSE TO OPINIONNAIRE

Least Helpful Simulation Experiences	Participants				
	Regular Class		Work-shop		To-tal
	F^a	%	F^a	%	F^a
All Valuable, Nothing Weak or Negative . . .	26	27	31	30	51
Manner of Doing In-Baskets Poor					
In-Basket Done on Own	3	3	..	..	3
In-Baskets a Waste of Time	9	9	3	3	12
In-Baskets Repetitious--No Change	..	..	4	4	4
Not Enough Time to do In-Baskets; Too Much Material	2	2	7	7	9
(Totals)	(14)		(14)		(28)
Problems not Familiar (Same Administrative Level or Own School), therefore, not Real .	20	21	7	7	27
Not Enough Time to do Group Discussions to Follow-up Problems	7	7	13	13	20
Specific Individual Mechanical Assignments did not Correlate with Simulation	10	10	9	9	19
Poor Quality Films	2	2	12	12	14
Lectures Poor; Boring; Over Heads of Students	2	2	10	10	12
Too Many Questions Left Unanswered	7	7	4	4	11
Few (e.g., Grad. Asst., Group Leaders) Dominating, Interfering in Discussion . . .	1	1	10	10	11
Instructor Poor; Didn't get Students Involved; Long Involved Explanations . . .	4	4	5	5	9
In-Basket Grading: One Correct Answer not Possible, Screening on This Basis Wrong . .	9	9	..	..	9
Factual Test	4	4	..	..	4
Unit on Supervision and Teacher Evaluation .	..	..	4	4	4
Physical Arrangements Poor; Lack of Space; Conference too Long	..	..	3	3	3
Visit to School Ordinary	..	..	2	2	2
Too Much Time in Individual Conferences With Professor	..	..	2	2	2
Role Playing done Poorly	..	..	2	2	2
Participants did not Play Principal Role . .	..	..	2	2	2
Personality Test	1	1	..	..	1
Frequency Totals	101		130		231

[a] F = Frequency of open-ended responses from 96 Regular Class and 102 Workshop participants.

(at one school) or having to get the one "correct answer" which counted on a grade and was used in screening out of the program (at the other school). They were almost the only persons who complained that the problems were unreal and a "waste of time to memorize that mock school." They wanted problems about their own school, about a system in their own area ("not in Chicago") or on their own grade level. They seemed unable to generalize from the specific situation which faced them to general principles. Could the format have caused this, in part, or was it the instructor who was unable to create a situation which made this possible? Many (10 per cent) of the Regular Class complained about specific written or reading assignments given to them that did not correlate with the simulated materials, and almost as many did not like so many questions being unanswered or not having one clearly best answer. The factual test on background material was mentioned as least helpful by four of this group but not by any in the workshop group.

The Workshop group's recital of least helpful activities is primarily one of lack of time and poor arrangements. They, more often than members of the Regular Class, stated that there was not enough time to do the In-Baskets and that the In-Baskets were repetitious with no improvement shown. They did not have enough time for group discussions (13 per cent) and often (10 per cent) were dominated by a few who gave "textbook answers to impress the professor"--several times specified as being graduate assistants. The physical arrangements were too crowded, the films were of poor quality and some guest lectures were boring or talked over their heads. One specific unit on teacher supervision and evaluation was mentioned as least helpful four times, but had been mentioned as most helpful five times by the same group.

In fact, none of the least helpful statements by the Workshop appear to be as serious or limiting as those mentioned by the Regular Class members. The lack of time felt may merely have been interest in wanting to continue--and more time could be scheduled. Similarly, it seems easier to arrange for more space, quiet the graduate assistants, or even arrange for better films than it is to combat an attitude of unreality, a "mock school" with nothing to say to me, and a desire for the "right" answer. One wonders again whether the differences are due to the difference in participants, in the format or in the instructor's view of how to use simulation. Indeed, the choice of type of format within which to use simulation and of the participants to encourage in its use might well arise from the same instructor's concept of how to use simulation.

When answering the question, "What have you done differently because of your simulation experience?", the Regular Class respondents were handicapped. As one of them said, "Nothing in specific because I am not yet in administration," and five others repeated some variation of the same comment. Yet, twenty-one of the Regular Class group stated that they felt they were better decision-makers, eighteen that they were better in their inter-staff relationships and group interaction, and ten that they were more aware of the entire range of tasks faced by the administrator. Apparently, some Regular Class members were able to make applications from the experience to their work. Yet, as Table XVI reveals, the ninety-six participants from this group wrote only eighty-one responses to this question, whereas the Workshop group

TABLE XVI

THINGS PARTICIPANTS HAVE DONE DIFFERENTLY AS A RESULT OF SIMULATION EXPERIENCE AS REPORTED IN OPINIONNAIRES

Actions	Participants				
	Regular Class		Work-shop		To-tal
	F^a	%	F^a	%	F^a
Better Decision-maker; Consider more Consequences of Actions, Alternatives, Gathered More Information; More Time	21	22	33	32	54
Better Staff Inter-relationships and Group Interaction (Better Perception)	18	19	30	29	48
More Aware of Administrator's Entire Job and Expectations of Him; Preparing Self for Broad View	10	10	12	12	22
Improve Administrator-Faculty Communication (Weekly Newsletter)	4	4	17	17	21
Analysis of Spheres of Influence and Community (PTA) Leadership	4	4	16	16	20
Small, Specific, Mechanical, and Technical Details of Routine Nature	3	3	15	15	18
Better Teacher Supervision and Evaluation	4	4	12	12	16
Organize School Day/Year Better (Daily Routines, etc.)	6	6	9	9	15
Better Understanding and Implementation of Leadership Function	6	6	7	7	13
Better Faculty Meetings and Use of Faculty Council	2	2	11	11	13
Better Analysis of "Silent Communications"; Especially of Self	2	2	2	2	4
More Autocratic in Dealing with Staff	1	1	2	2	3
Frequency Totals	81		166		247

^{a}F = Frequency of open-ended responses from 96 Regular Class and 102 Workshop participants.

of one hundred two members wrote 166 separate comments about what they felt they were doing differently as a result of this type of experience. Perhaps the older, better trained, and more experienced group are just more verbal--they did out-respond the Regular Class group on all three open questions--or perhaps only verbal persons remain in administration. In any case, in all but one category of action as a result of simulation,the Workshop group responded much more frequently. The exception was understanding the administrator's entire job, the range of tasks, and the broad overview. About 10 per cent of both groups stated this.

In addition to the broad view of administration, better decision-making and staff relationships, the Workshop group mentioned doing such things as better teacher evaluation (12 times), better organization of routines and schedules (9 times), improved communications (17), awareness of spheres of influence and social structure of the community (16), faculty meetings and/or faculty council (11 times), and understanding of leadership (7 times). Even discounting for enthusiasm (and some of those responses were four years after the workshop), this is a lot of change to attribute to one specific activity. Two Workshop members replied that they were now "more autocratic in dealing with staff." Without knowing the persons, their personalities, and former administrative behavior, one cannot assess the worth of this comment.

One source of insight into the differences between the Regular Class and Workshop groups lies in the responses the professors who directed these specific groups made to open-ended questions on the first instrument.

Two of the three professors directing simulation of these Regular Classes have considerable doubt as to its usefulness there and list this as a weakness. Both would prefer longer sessions for more intensive work and "side trips" in discussions, and prefer mixed participants (i.e., more with administrative training and experience). One of these stated that one purpose for the Workshop was to prevent frequent reference to "my situation." He felt that it is boring if students "spend too much time discussing 'What I did' on the In-Basket items, or if they are permitted to refer to 'my school.'" While participants indicate indirectly that they agree with professors regarding the longer, more intensive sessions, they appear to disagree about the opportunity to discuss specific problems they face in their own schools. Perhaps a better approach to orientation to the Jefferson situation and the purpose of a common background is needed.

Regarding the follow-up to In-Basket responses, the two professors quoted above, and both from the same institution, specifically state that discussion and comparisons of responses were brief and then followed with "much more time spent on the scoring categories. . . ." The other professor who used simulation in Regular Classes, spends the first session in discussion. He then summarizes and "explains the solution." Next, "items are scored on a five-point scale. Emphasis is on the prudence . . . /of the student/ rather than his style. Scores are tabulated and posted to a chart. Students are given a code number so that instructors grade the responses anonymously."

On this same question of follow-up of In-Baskets, all three of the professors who directed the Workshops whose participants were surveyed emphasized group discussion of responses and impromptu "conceptual frames in which In-Basket decisions are set." Another utilized role playing of possible consequences, and the third utilized informal self-evaluation of their responses by participants. From what the professors state they did, there is indeed a big difference in participant-involvement and responsibility on the precise activity which both groups of participants state was most helpful to them--the In-Baskets.

In the list of purposes for which simulation was used, the three directors of Workshops included "develop insights into the behavior of human beings in social groups," "evaluate own administrative behavior," "emphasize student involvement and skill practice, especially in decision-making, communication, perception, and group dynamics," and "analyze the structural elements of the social system." In contrast, while the directors of Regular Class simulation include "improved decision-making," they also list "to orient the student into the principles and responsibilities of administration," "to serve as one factor in eventually . . . judging the candidate as acceptable or not to continue in administration," "to use the background materials as models for topics in school administration . . . so that all are making reference to the same school system," "to provide people with no administrative experience with a realistic experience," "to let neophytes discover the kinds of problems likely to be met," and "to let neophytes see how experienced administrators respond to typical problems." In planning the purposes which they intended simulation to help achieve, the directors of these experiences appear to have made some major decisions about different consequences with results that we have already noted from the comments by participants.

Evaluation of Simulation

There were two instances reported in which an attempt had been made to make a controlled evaluation of the effectiveness of simulation. Luvern Cunningham[1] and Larry Iannaccone[2] reported separately that, in a workshop at the University of Chicago during the summer of 1962, they attempted to measure whether participants are sensitized to a wider range of variables in the situations to which administrators must respond. The staff of the workshop, two professor-directors and two graduate assistants, constructed a pre-test and post-test to measure the degree to which participants were sensitive to such variables, along with the Osgood Semantic Differential. Although there was improvement shown, it was not enough to be statistically significant nor was it consistent for all participants. Cunningham indicated that the staff was unsure whether this lack of significance was due to an inadequacy of the instrument used to measure situational sensitivity or whether there was, in fact, so little growth in such sensitivity. Iannaccone reported that the degree of experience and training of the participants was already considerably higher than the average school administrator before the workshop began and that this reduced the sensitivity possible to the instrument used.

Cunningham also referred to the earlier study made by Fern at Chicago the year before and noted above.[3] Although Fern's purpose was to evaluate changes in problem perception and problem solving as they occurred during the simulation workshop, he did make several observations about the effectiveness of the workshop and simulation. He found a built-in inflexibility in that, regardless of the participants' response to the first In-Basket items, all of them received the same second and third In-Baskets; the In-Baskets "lack any individualized feed-back."[1] He suggests machine programing which would not only provide sequential and branched feedback, it would also relieve the instructor of much of the problem of scoring. Fern does comment that improvement in problem-solving appears to be related to "social behavior which enlivens group discussion; and, a self-concept of having many close friends, probably related to a behavior which met this particular group's needs." Fern sees this type of simulation workshop as providing the type of social atmosphere and activities to promote these aids to improved problem-solving. One of the major findings by Fern has relevance to directors of simulation. Fern found that perceptions of priority (a need for either speed or importance) and number of problems handled are not apparently related to adequacy of problem solution. Since priority and amount of work done were two aspects covered in the original Hemphill and Griffiths study,[2] the materials do draw attention to these factors. If not understood, there might be some tendency to emphasize these factors in simulation sessions. Further exploration of these factors may clarify the situation and help guide teachers of school administration.

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[1] Interview with the author, February 18, 1964.

[2] Letter and papers sent to the author, dated May 28, 1964.

[3] William H. Fern, "Aspects of Problem Perception and Problem Solving in Educational Administration," (Unpublished Doctoral Thesis, The University of Chicago, 1961).

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[1] William H. Fern, "Aspects of Problem Perception and Problem Solving in Educational Administration," The University of Chicago, 1961.

[2] John K. Hemphill, Daniel E. Griffiths, and Norman Frederiksen, Administrative Performance and Personality (New York: Bureau of Publications, Teachers College, Columbia University, 1962), pp. 342-4.

Shepard's study, previously noted, is not precisely an appraisal of the use of simulation. It is a comparative analysis of the block-of-time courses for students entering a program in school administration at the University of Buffalo, the University of Texas, and the University of Nebraska.[1] Since the course at Teachers College, University of Nebraska, is built around an eight-week extended use of simulation in combination with other planned activities, it does make assessments of the simulation portion of the block-of-time. The overall ratings by participants are included in the comments about participant reaction reported by professors on pages 115-118 and in Table XI. Predictably, the participants were generally enthusiastic about most aspects of simulation and the instructors of the course. Other conclusions of the study were that this type of course does help advisors become better acquainted with new enrollees in administration; that the course might be improved by coming after some other graduate courses and not as the first graduate experience; that while isolation may be helpful to promoting the course itself, it detracts from total learning; and that there were areas of weakness in the broad fields of economic principles and current educational problems.[2] He suggests further study of on-the-job behavior to attempt to evaluate the worth of both simulation and the block-of-time course and a study of the appropriate position of this type of experience in the sequences of courses taken.[1] Strangely enough, Shepard does not take even a speculative position about the worth of simulation as an effective instrument in teaching school administration.

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[1] Wesley T. Shepard, "A Study of Educational Administration 250, Principles and Processes of Educational Administration," (Unpublished Doctoral dissertation, The University of Nebraska, 1964).

[2] Ibid., pp. 101-3.

An earlier status study of simulated materials, without appraisals by participants, was done in 1962 by Broadhead.[2] Although such a study deserves a full analysis and comparison of results with the present study, or perhaps this study should have been built upon the earlier one, this was not possible.[3] Even though Broadhead's survey instrument was completely different from those used in the present study (basically a series of fifteen check lists) it is possible to briefly compare the major findings.

Broadhead used responses from the sixty-one professors at as many universities using simulation (31 per cent of those answering his survey).[1] His basic findings were similar to those of the present study: both professors and participants (as reported by professors) were enthusiastic about simulation. The general purposes that were felt to be important were providing a laboratory experience based upon real situations and placing students in leadership positions,[2] the latter not cited in open responses to the present study. Specific purposes stated as important were to develop skill in situational analysis, to stimulate participants to evaluate their own administrative behavior, to learn to apply administrative theory to simulated situations, and the application of conceptual learning.[3]

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[1] Wesley T. Shepard, "A Study of Educational Administration 250, Principles and Processes of Educational Administration," (Unpublished Doctoral disseration, The University of Nebraska, 1964). p. 104.

[2] William Ray Broadhead, "A Study of the Use of Simulated Materials as a Method of Instruction in Educational Administration," (Unpublished Doctoral thesis, Washington State University, 1963).

[3] The study first came to the attention of the author when he completed the questionnaire for the study in April of 1962. Although a copy of the results was offered and requested, none was received. In the next three years a total of seven letters and two phone calls were sent to three different persons at this institution asking about this study in specific or any study on simulation in general. No response was received which indicated that the study was ever completed, nor did the UCEA have any record of such a study. Dr. Broadhead's present location was finally found in late April 1965. Although an inter-library loan of the study was quickly arranged, it was too late to profitably use the study in the rigorous manner which it deserves.

The pre-planning activities listed as most important were to develop objectives and procedures, to have staff members trained, and to review the UCEA materials on simulation.[4] The preferred class schedule was three hour sessions over eight weeks time, with a general finding that the shorter the individual session preferred, the longer the duration in weeks.[5] Broadhead notes that many professors were making the simulation schedule fit that of the regular classes.[6] Participants reported were most frequently teachers, elementary principals, or graduate students.[7] The staff was usually one full time person plus graduate assistant help.[8]

Within the simulation situation, the preferred methods of presentation were small discussion groups, large discussion groups, seminar sessions, and role-playing.[1] However, it should be noted that lectures and In-Baskets were not offered as choices to check. Background materials were the materials most often used.[2] The appraisal technique used most often was student evaluation of simulation by discussion.[3] Class appraisals of participants responses were used more often than staff evaluation.[4]

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[1] William Ray Broadhead, "A Study of the Use of Simulated Materials as a Method of Instruction in Educational Administration," (Unpublished Doctoral thesis, Washington State University, 1963), p. 58.

[2] _Ibid_., p. 60. [3] _Ibid_., p. 62. [4] _Ibid_., p. 63. [5] _Ibid_., p. 65.

[6] _Ibid_., p. 66 [7] _Ibid_., p. 69. [8] _Ibid_., p. 68.

The problems reported were primarily inadequate evaluation devices, technical problems, and inadequate simulation problems and background materials.[5] Professors responding thought they could improve their use of simulation by more advance preparation, with more clerical, staff, and student assistance, and with better devices for student evaluation.[6] Strengths reported were the development of skill in situational analysis, opportunities for participant self-evaluation, the realism of a situation calling for action, and the promoting of readiness for learning the theory of administration.[7]

Broadhead summarizes his study by stating that widespread interest in using simulation is evident but that devices for student evaluation are needed and that objective studies of what the effects of simulation are should be made.[8] He suggests that the availability of a manual of basic concepts in administration for assigned readings would add to the value of simulation.[9]

It is unfortunate that the results of Broadhead's study did not get wider dissemination, for, as the present study appears to indicate, professors have been searching for more information about simulation and its use.

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[1] William Ray Broadhead, "A Study of the Use of Simulated Materials as a Method of Instruction in Educational Administration," (Unpublished Doctoral thesis, Washington State University, 1963), p. 70.

[2] _Ibid_., p. 72. [3] _Ibid_., p. 75. [4] _Ibid_., p. 76. [5] _Ibid_., p. 78.

[6] _Ibid_., p. 80. [7] _Ibid_., p. 81. [8] _Ibid_., p. 88-89. [9] _Ibid_., p. 96.

Finally, a comment by Iannaccone regarding the problems of evaluating the effectiveness of simulation experiences is relevant here: "What we need most are some financial resources to test the utility of simulation. While I have boot-legged some evaluation into most of my operations, I am about ready to give up trying to evaluate simulation unless I can get the five or six thousand dollars which are necessary."[1] Other respondents have made similar comments about the difficulty of accurate evaluation, with proper controls, without adequate resources of time, personnel or money.

An Assessment of Present Use of Simulation

In this final section, an assessment of the manner in which simulation has been used will be attempted. This will be done by comparing the criteria for teaching techniques derived in Chapter II with the specific details of simulation use reported in Chapter III and with the appraisals of the simulation technique made by both professors and participants.

Simulation and Criteria for Teaching School Administrators

The criteria described in Chapter II can be summarized briefly as follows:

1. No one technique can accomplish all desired purposes.
2. Purposes should be carefully planned before establishing both the program and its specific techniques.

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[1] Letter from Iannaccone, May 24, 1964.

3. A variety of techniques in a totally planned program is preferred to reliance on any specific few techniques.

4. Flexibility in program and techniques is desirable to fit individual learners and changing purposes.

5. Recent research and theory should be utilized in the training process wherever possible.

6. Programs used successfully in training administrators in other fields may offer clues for training school personnel.

7. Active involvement in group work should be one component of the training program to improve student skill in human relations.

8. Students should be involved in activities that represent the real concerns of administrators, including aspects of decision-making and responsibility for their consequences.

9. The course content should reflect present reality in school administration.

10. Students should be helped to see and understand the broad overview of this reality and all of its inter-related components.

Although it is not possible to get data bearing on the relationship of simulation to all of these criteria, Chapters III and IV do offer some evidence upon which to base at least tentative conclusions.

In Chapter I, simulation was defined, for this study, as a teaching arrangement which includes simulated problems, situations and materials in combination with various teaching methods structured to actively involve participants in realistic problem situations, all directed toward the accomplishment of specific, pre-defined purposes. As one examines the reports of how simulation was used (as shown in Tables II, III, IV, V, and VII), the variety of purposes, materials, teaching methods, and formats described there appear to fit a complex of teaching techniques rather than just one. The use of a group of problem materials in combination with several methods appears to have been carried out in practice. Criterion number 1 seems met by simulation since it is not one technique, but rather a group of techniques focused upon a common set of problems and materials.

As previously noted in Chapter III, the number of outside materials brought into use within the simulation may be either a strength or a weakness. Either judgment must await more objective evaluation, but at present it seems safe to say that the use of such materials represents a high degree or flexibility and adaptability built into the basic concept of simulating a school system and its related problems for teaching purposes. Therefore, criterion 4, flexibility, does seem to be met by simulation.

However, criteria 2 and 3, relating to planning, are supported by less uniform data. While many of the respondents' statements of purpose show evidence of specific planning which is reflected in their attempting to select format, materials, and methods appropriate to these purposes, in many other cases the superficial quality of the statements of purposes and appraisals of its use are less reassuring. One respondent indicated, as his only purpose, using simulation "simply to acquaint students with these materials and the method." His only comments about its effectiveness were that "the novelty and realism were valuable. Expense is a limitation." This did not convey an impression of a large amount of pre-planning, and his was not the only such set of statements. Even where there is evidence of much specific planning for the simulation experience itself, testimony indicating its place in a total program is lacking.

The first four criteria relate to the organization and implementation of both total programs of preparation and the specific components of such a program. In one of the interviews, the head of a department of education stated that there were some definite roadblocks in the way of attempting to freely plan and implement any such desired program, and specifically, simulation. He stated that commonly accepted traditions in course hours of credit, grading and transfer standards, and scheduling requirements in both administration and related fields make it difficult to introduce any technique which does not easily fit into already established patterns. When the problem is complicated, as it is with simulation, by the need for more staff time, more money for materials, more equipment and physical space, and more clerical and student assistance than is usual, it is almost a foregone conclusion that if used at all, it will not be adopted in its best and most complete form.[1]

Although this may sound overwhelming, at least two universities, Texas and Nebraska, now utilize a very unique block-of-time program for the candidate's entire schedule during his first summer of work in school administration. Simulation is a part of this block--the major part at Nebraska and a minor part at Texas. Interviews with the head of the department of educational administration at these institutions produced comments that show the extent to which they have met these first four criteria.[2] In both cases it took restructuring of the entire program of training and of its purposes. Simulation was not an experience merely added to the others already established and accepted.

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[1] Interview with one of the experienced users of simulation on file in the author's collection.

[2] Interviews on file in the author's collection.

Criterion 5 refers to the use of recent research and theory in teaching. This was by far the most often stated purpose for the use of simulation; but it is not to be confused with using simulation as a vehicle to do research into the process of administration, which was also mentioned infrequently as a purpose. The use of specialized materials and assignments that are research or theory-based is another evidence that this criterion is being met rather well. Many responses referred to specific purposes and presentations, discussions, or units on such topics as decision-making (most frequent), group dynamics, communication, social systems, perception, and other behavioral science concepts.

Searching for training techniques which have proven successful in other fields, criterion 6, was actually the origin of simulation in the training of school administrators. The In-Basket was originally designed for use by the U. S. Air Force in training officers, and the first non-military application was in the field of business administration. In the latter field, business, simulation and the In-Basket technique were widely promoted in the late 1950's by the American Management Association and numerous private executive training firms. Some of the newer developments in these fields, or others, may well help solve some of the problems found in using simulation in teaching school administration.

Active involvement of students in human relations and group work, and in real problem-solving, criteria 7 and 8, were accepted parts of training programs for school administrators for many years through the techniques of the field problem, the survey, the internship, the training group, and role playing. Group discussion was the method most often reported as used in connection with simulation, and role playing and small groups were very frequently used also. The In-Basket technique for solving real problems came close to being a constant of all simulation experiences reported and, as reported by both professors and participants, led to active involvement of students more than any other activity. However, there were other realistic problems utilized which increased involvement and utilized groups, such as: cases, the selection of a principal, kinescopes of teachers in action and the follow-up supervisory conference (often role-played), and many original problems created by simulation directors.

The utilization of the present reality of school administration is harder to document. When the materials were created, in 1958, they represented an up-to-date school system in action. Several respondents have raised the issue, reported under weaknesses, that simulation materials by their very nature are difficult to keep up-to-date and that even when they are up-to-date, they represent only the best of present practice and not the lean-to-the-future needed to become an administrator who can handle the school problems of tomorrow. One reply is to cite the use of the most recent theory and research within simulation, as well as the heuristic potential of the simulated school system itself. Although the original Jefferson materials apparently tried to meet criterion 9, it does appear that critics are correct in stating that many of the elementary materials are out-of-date and do not reflect recent innovations at that level. However, it would also appear true that numerous professors have added other problems, cases, films, and tapes that do bring in more recent developments. Given the problem of identifying the content of reality at any time and the fact that there is a wide range of practice current at one time (from the very archaic to the most radically progressive) in the schools of America, an objective appraisal of simulation may well find that it is meeting this criterion as well or better than many alternative teaching techniques.

The final criterion, of providing a broad overview of school administration, appears to be well met by simulation. Certainly both professors and participants attest to this fact. Other evidence is found in the range of materials and problems utilized in the simulation experiences reported. Even the critics who would limit its use agree that this criterion can be met by simulation. Indeed, four respondents stated that it is the only purpose it serves well.

Although it is not claimed that the ten criteria utilized above are all that need be used in selecting elements in training programs for school administrators, they do contain much that appears needed and desirable in such programs. Simulation apparently meets seven of the ten requirements quite well and is not itself a major obstacle to another, number 4. Criteria 2 and 9 point up problems inherent to the use of simulation, but problems which appear to be difficulties that are open to solution under certain circumstances and not insurmountable, permanent obstacles. Nevertheless, those planning to use simulation would be well advised to note these problems and attempt to solve them as much as possible before beginning to plan for its use.

CHAPTER V

EFFECTIVE USE OF SIMULATION

In an attempt to determine how simulation might be used most effectively in teaching school administration, a forced-choice questionnaire (Q. #2) was sent to those persons who had used simulation, as reported in responses to the postcard survey. Statistical data on these mailings may be found at the beginning of Chapter III. This second questionnaire asked users of simulation to make selections and rankings in each category with the thought in mind of making the most effective use possible in the light of their present knowledge of simulation.[1] Professors who had used simulation returned 101 of these forced-choice instruments.

Preferred Purposes for Effective Use of Simulation

General Purposes

The first section asked the respondent to rank the top two purposes, from a list of eight derived from responses to questionnaire number one, which they felt would be best achieved through using simulation. (Emphasis as used on the questionnaire.) They were then asked to rank the two purposes that they felt were served least well by simulation. In order to compare the overall opinion the top two rankings (one and two) were weighted as +2 and +1, respectively. The bottom two rankings

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[1] The forced-choice questionnaire and its cover letter may be found in Appendix B.

(seven and eight for general purposes, and eleven and twelve for specific purposes) were weighted as -1 and -2, respectively.

A summary of their responses, as reported in Table XVII, clearly shows that involvement of participants in actual problem solving was the primary purpose, ranked first by 37 of the 101 respondents and second by 28. Thus, over 64 per cent of the respondents ranked involvement as one of the two purposes best served by simulation. Helping students understand basic concepts and theories of administration by using them in practice was next with 25 ranking it first and 20 placing it second (45 per cent). Close behind (selected by 41 per cent) was the goal of providing trainees with an opportunity for self-evaluation by analyzing their administrative behavior in comparison to others. This was ranked first by 20 professors and second by 21. Another purpose selected as one best served by using simulation was providing participants with the opportunity to improve various administrative skills through practice, ranked first by 10 and second by 19 respondents, or a total of 29 per cent. No other purpose was selected as best served more often than it was selected as not effectively served by simulation.

Purposes assessed as served least well, from the forced-choice list, were recruitment (ranked seventh 32 times and eighth 38), illustration of administrative problems and materials (chosen seventh 17 times and eighth 34), and research, using simulation as a realistic model (seventh 26 times and eighth 19 times).

Briefly, the ranking for proposed effective use of simulation was: (1) student involvement, (2) conceptual learning, (3) self-evaluation, and (4) practice in skills. Chapter III reported the frequency of

TABLE XVII

PURPOSES MOST EFFECTIVELY ACHIEVED BY SIMULATION AS SELECTED BY PROFESSORS WHO HAVE USED SIMULATION

General Purposes	Frequency of Ranking				Total Weighted Point Value	Rank
	1	2	7	8		
Involvement	37	28	-	-	+102	1
Conceptual Learning	25	20	-	1	+ 68	2
Self-Evaluation	20	21	3	-	+ 58	3
Practice in Skills	10	19	2	1	+ 35	4
Guidance and Screening	4	5	17	4	- 12	5
Research	2	4	26	19	- 56	6
Illustrative	2	2	17	34	- 79	7
Recruitment	-	1	32	38	-107	8
Other Purposes	1	1	-	-	-	-
Totals	101	101	97	97		

Specific Purposes	Frequency of Ranking				Total Weighted Point Value	Rank
	1	2	11	12		
Decision-Making	65	17	-	1	+145	1
Perception	12	24	5	1	+ 41	2
Group Dynamics	13	10	3	3	+ 27	3
Leadership Theory	3	15	3	3	+ 12	4
Communication	1	8	2	7	- 6	5
School Community Relations	-	4	4	3	- 6	6
Supervision of Staff Personnel	1	5	1	7	- 8	7
Sociology of Staff	1	3	9	6	- 16	8
Scheduling Work and Time	2	10	14	14	- 28	9
Administrative Personality	2	3	6	16	- 31	10
Sociological Aspects of Community	-	1	10	11	- 31	11
The Instructional Program	-	-	41	26	- 93	12
Totals	100	100	98	98		

actual use as this ranking of purposes: (1) conceptual learning, (2) practice in skills, (3) student involvement, (4) illustrative, and (5) self-evaluation. Apparently experience with simulation has changed the priority of goals envisioned by users, with the student-centered goals of involvement and self-evaluation now seen as being more effectively achieved through the use of simulation than formerly.

Specific Purposes

Within the framework of these general purposes as the organizing principle, it is possible to focus on one or more specific conceptual or skill areas for emphasis. Respondents were asked, in Section IV of questionnaire number two, to select the two specific areas most effectively taught by simulation from a list of twelve and to rank them first and second. They were then asked to rank the two areas for which simulation was least effective as eleventh and twelfth. The results were even more decisive than the rankings of the general purposes.

Decision-making was ranked first by 65 persons, second by 17, and twelfth by one 1 person. In other words, 81 per cent of those responding selected decision-making as one of two specific areas for which the use of simulation was most effective. However, only 36 per cent selected the second most popular area, perception and its relationship to administration. Twenty-three per cent ranked group dynamics and human relations as first or second and 18 per cent favored leadership theory. Table XVII on page 150 contains the specific frequencies and ranking of all specific purpose areas.

In the opinion of users responding, the least effectively taught area through the use of simulation was the instructional program.

No one selected it as first or second. Selected only once, as a second rank, was sociological aspects of the community, with the administrative personality only slightly more preferred with 5 per cent of "best" choices.

A comparison in Table XVIII of what professors who have used simulation now feel are areas effectively taught with those they reported in Chapter III in actual use shows that sociological aspects of staff and of community have both lost their position in rank Perception and leadership theory have both jumped higher in importance. This would seem to indicate that simulation is now seen as being more effective in teaching concepts about the administrator himself than about the staff or the community.

Preferred Materials for Effective Use of Simulation

The materials of simulation section asked each professor to rank his selection of materials to achieve the purposes he had already chosen as most effectively filled by simulation. The materials are, therefore, associated with the purposes for which they were selected. However, it is possible to get an overview of which materials seem generally most effective from a summary of materials for all purposes, as shown in Table XIX. Weighted points were assigned to each rank by reversing the number of each rank. Since materials were ranked from one to eight, a rank of one was assigned a value of 8, a rank of two was weighted as 7, a rank of three as 6, of four as 5, a rank of five was weighted as 4, a rank of six as 3, of seven as 2, and of eight a value of 1. These were multiplied times the frequency of each rank and summed. These totals give an estimate of the total value of each type of material in the judgment of the professor-users.

TABLE XVIII

COMPARISON OF PURPOSES FOR WHICH PROFESSORS HAVE USED SIMULATION WITH PURPOSES THEY NOW PREFER FOR MOST EFFECTIVE USE

Specific Purposes	Rank In Use	Rank Recommended
Decision-Making	1	1
Group Dynamics	2	3
Communication	3	5
Sociological Aspects of Staff	4	8
Staff Personnel and Supervision	5	7
Sociological Aspect of Community	6.5	11
The Administrative Personality (D.C.S. Findings)	6.5	10
Scheduling of Work and Time	6.5	9
Leadership Theory	9.5	4
School-Community Relations	9.5	6
Perception and Administration	9.5	2
The Instructional Program	12	12

TABLE XIX

MATERIALS PREFERRED FOR MOST EFFECTIVE USE OF SIMULATION AS RANKED BY PROFESSORS WHO HAVE USED SIMULATION

Materials	Frequency of Rankings								Total Weighted Point Value	Over-all Rank
	1	2	3	4	5	6	7	8		
In-Baskets, Several in Full	86	41	9	9	4	4	2	2	1108	1
Background Materials, Total Inter-related Factors	44	39	13	9	9	15	16	9	800	2
In-Baskets, Brief Selected Items	34	39	14	9	13	10	9	2	776	3
Taped Problems	1	14	38	36	30	22	5	2	712	4
Role Plays	8	20	32	30	21	17	7	13	708	5
Outside Cases, Filmed or Written	10	12	43	19	19	18	15	10	687	6
Kinescopes	0	16	23	37	34	21	6	11	657	7
Brief Background (Selected Materials)	10	19	6	9	10	10	18	20	420	8

The use of full In-Baskets is obviously the preferred material since it was ranked first 86 times, almost double the 44 who ranked total background materials first. Since these two sets of materials are intended for use together, it is not unexpected that they are both ranked high. What is interesting is that brief In-Baskets, in which the director selects items to achieve a specific focus, were ranked almost as high as total background materials. However, this notion of selecting from a total set of materials for brevity and focus was not desired in background materials. Brief background materials were ranked last of the materials listed on an overall basis. The other Jefferson materials, taped problems and kinescopes, ranked fourth and seventh respectively. The outside materials, structured role plays and outside cases, ranked fifth and sixth on an overall basis.

When one tabulates the responses to material ranking by the purposes with which they were selected for use, the specific picture changes according to the purpose desired. Professors do not just prefer certain materials, they apparently prefer materials which they feel will help them achieve the purposes they wish to achieve. For example, Table XX reveals that the full sets of In-Baskets are ranked first by total and for every purpose except one; when research is the desired goal the multi-detailed background materials are ranked first.

For most purposes, the In-Baskets and background materials are still seen as being used together and reinforcing each other--as they were originally planned to do. Therefore, full sets of background materials are ranked first, second, or third by all but the persons who see simulation used most effectively for self-evaluation, guidance and screening, and illustrative purposes. For only these three is the rank

TABLE XX

SIMULATION MATERIALS PREFERRED TO MOST EFFECTIVELY ACHIEVE DESIRED PURPOSES, SELECTED BY PROFESSORS WHO HAVE USED SIMULATION

Materials[d]	Involvement (69)[a]		Conceptual Learning (57)[a]		Self Evaluation (46)[a]		Practice in Skills (28)[a]		Guidance and Screening (8)[a]		Research (6)[a]		Illustrative (4)[a]		Recruitment (1)[a]	
	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]
In-Baskets, in full	353	1	234	1	224	1	140	1	64	1	28	2	22	1½	8	1
Background, Total	260	3	217	2	117	7	103	3	29	6	44	1	15	6	7	2
In-Baskets, Brief	265	2	125	7	183	2	119	2	40	2	15	4½	19	3	0	-
Taped Problems	231	5	165	4½	163	5	83	6	31	4	9	6	16	4½	3	6
Role Plays	248	4	145	6	166	3	91	5	35	3	4	8	10	8	5	4
Outside Cases	199	7	167	3	157	6	97	4	30	5	15	4½	16	4½	6	3
Kinescopes	203	6	165	4½	165	4	71	7	19	7	18	3	12	7	4	5
Brief Selected Background	134	8	109	8	81	8	52	8	15	8	7	7	22	1½	0	-

[a] Number of professors selecting this purpose as their first choice.

[b] V = Weighted Value, computed by counting each rank one as 8 points, rank two as 7 points, rank three as 6 points, rank four as 5 points, rank five as 4 points, rank six as 3 points, rank seven as 2 points, and rank eight as 1 point.

[c] Composite rank based upon weighted values.

[d] Materials are listed in order of overall rank.

of the full background as low as sixth or seventh. Further, it appears that a brief background is not seen as important for most purposes, since professors rank the brief background as eighth for all but one purpose. Brief background tied for rank number one with the full In-Basket as part of the focus on the illustrative purpose only.

Brief In-Baskets ranked third overall, and in the top four materials for all but one purpose: conceptual learning. The emphasis here is on length and detail, with the rejection of briefer sets.

Of the outside materials, cases were highly ranked (third) by those favoring conceptual learning and by the one respondent wishing to emphasize recruitment through the use of simulation. Role plays as materials were ranked as high as third only for the purposes of self-evaluation, and guidance and screening. Kinescopes ranked this high only for research purposes.

When one compares these same responses in a tabulation by format preferred, as in Table XXI, the findings are somewhat similar. The persons favoring a long workshop (20 hours or more in length) favored the same order of ranking these materials as did most of the rankings by purpose. However, for both short workshops and regular class use the background materials were ranked lower (fifth and sixth) and the cases higher (third). This may be due to a connection between purpose and format.

Preferred Methods for Effective Use of Simulation

The same technique for determining a weighted value as a sum of the ranks assigned by the respondents, as used in Table XIX, Materials, on page 154, is used for the methods for use in simulation, Table XXII. The resulting total ranking of methods is consistent with

TABLE XXI

MATERIALS PREFERRED FOR USE IN THE FORMAT SELECTED BY PROFESSORS WHO HAVE USED SIMULATION

Materials	Format						Over-all Rank
	Short Workshop (9)[a]		Long Workshop (71)[a]		Regular Class (19)[a]		
	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	
In-Baskets, In Full . . .	79	1	794	1	214	1	1
Background, Total	59	6	598	2	133	5	2
In-Baskets, Brief	74	2	517	3	169	2	3
Taped Problems	68	5	496	5	138	4	4
Role Plays	71	4	505	4	126	6½	5
Outside Cases	72	3	467	7	139	3	6
Kinescopes	54	7	471	6	126	6½	7
Brief Selected Background	28	8	287	8	91	8	8

[a] Number of professors selecting this format as their first choice.

[b] V = Weighted Value, computed by counting each rank one as 8 points, rank two as 7 points, rank three as 6 points, rank four as 5 points, rank five as 4 points, rank six as 3 points, rank seven as 2 points, and rank eight as 1 point.

[c] Composite rank based upon weighted values.

TABLE XXII

METHODS PREFERRED FOR MOST EFFECTIVE USE OF SIMULATION, AS RANKED BY PROFESSORS WHO HAVE USED SIMULATION

Methods	Frequency of Rankings								Total Weighted Point Value	Over-all Rank
	1	2	3	4	5	6	7	8		
Problem Solving	77	31	24	20	9	5	3	2	1136	1
Small Discussion Groups	42	38	35	26	8	7	5	1	1006	2
Role Playing	16	40	29	21	18	9	7	10	810	3
Large Discussion Groups	8	21	22	27	22	14	12	13	645	4
Audio-Visual, Film and Tape	8	11	15	21	34	24	12	8	576	5
Reading Assignments	15	15	14	11	14	25	23	17	558	6
Student Assignments (Group and Individual) .	7	17	16	23	24	17	16	10	554	7
Lecture	13	11	16	12	11	13	25	25	507	8

that given the materials. Problem solving is first by a substantial margin. This is the primary method of using In-Basket materials, also ranked first. Small group discussion was the second most popular method, perhaps to follow the results of problem solving. Role playing was third, also by a large margin, higher than the materials for structured role plays. This would imply some intended use of unstructured role playing. After large group discussion, ranked fourth, the last four methods are quite close to each other in total weighted values and the distinctions are not as obvious. In general, all four of these latter methods--use of audio-visual (film and tape), assignments, and lectures--are more structured and typical of most graduate instruction than are the first ranked four methods.

Again, a breakdown (Table XXIII) of these total tabulations by purpose for which they are meant to be used reveals some interesting differences. A tabulation for the purpose selected as being most effectively used by simulation, involvement, shows the same ranking of methods as described above. Problem solving ranks first for use with all purposes, except illustrative. Small discussion groups, generally ranked second, is first with the illustrative use, but ranks fifth when used with the research purpose and seventh for recruitment. Large group discussion was second in value to the one professor who proposed simulation's effective use in recruitment to administration, but those advocating research as the effective purpose placed large group discussion eighth.

The more formal and typical methods were ranked in the top three only infrequently. The use of films and tapes rated third for research purposes, perhaps because kinescopes had been ranked third highest as a research material. Reading assignments were not ranked above fourth

TABLE XXIII

SIMULATION METHODS PREFERRED TO MOST EFFECTIVELY ACHIEVE DESIRED PURPOSES, SELECTED BY PROFESSORS WHO HAVE USED SIMULATION

Methods[d]	Involvement (67)[a]		Conceptual Learning (45)[a]		Self Evaluation (42)[a]		Practice in Skills (28)[a]		Guidance and Screening (7)[a]		Research (5)[a]		Illustrative (4)[a]		Recruitment (1)[a]	
	V^b	R^c	V^b	R^c	V^b	R^c	V^b	R^c	V^b	R^c	V^b	R^c	V^b	R^c	V^b	R^c
Problem Solving	416	1	230	1	230	1	151	1	50	1	21	1	23	2½	8	1
Small Group Discussion	341	2	213	2	222	2	135	2	48	2	11	5	30	1	2	7
Role Playing	312	3	151	5	166	3	121	3	35	4	8	6	11	5½	4	5
Large Group Discussion	217	4	150	6	135	4	82	6	29	5	0	8	20	4	7	2
Audio-Visual (Film and Tape)	194	5	132	7	115	5	87	5	16	6	17	3	6	7	3	6
Reading Assignments	162	6½	177	4	97	8	75	7	12	7½	15	4	11	5½	1	8
Student Assignments (Group & Individual)	162	6½	124	8	112	6	91	4	37	3	20	2	23	2½	6	3
Lecture	125	8	200	3	101	7	41	8	12	7½	4	7	4	8	5	4

[a] Number of professors selecting this purpose as their first choice.

[b] V = Weighted Value, computed by counting each rank one as 8 points, rank two as 7 points, rank three as 6 points, rank four as 5 points, rank five as 4 points, rank six as 3 points, rank seven as 2 points, and rank eight as 1 point.

[c] Composite rank based upon weighted values.

[d] Methods are listed in order of overall rank.

for any purpose but were given that rank for both conceptual learning and research purposes. Student assignments, both group and individual, were ranked second and third for the four least popular purposes: research, illustrative, guidance and screening, and recruitment. Lectures were highly favored only for conceptual learning (ranked third) and recruitment (ranked fourth).

Re-grouping the rankings of methods by the format preferred by professors again reveals some interesting differences in Table XXIV. The dominant format, the long workshop, generally favors the same ranking of methods as that of the total group, but its separate tabulation reveals student assignment as moved up to fifth rank compared to an overall seventh. Short workshops apparently favor reading assignments (fourth) and lectures (fifth) more highly, and large group discussion less (ranked seventh). Regular class usage is associated with a low rank for audio-visual methods.

Preferred Format for Effective Use of Simulation

Table XXV lists the overall choices of respondents for their preferred format for the effective use of simulation. Clearly the longer workshop (40 to 60 hours in length) is by far the most preferred arrangement. The long workshop (20 to 30 hours) is second in preference, and the longest workshop (more than 60 hours) ranks third. Regular class use is fourth and the shortest workshop (10 to 20 hours) is last in rank. When used in regular classes, respondents indicate a marked preference for 15 meetings or less of three hours each (Table XXVI). It seems apparent that professors feel a need for at least forty hours for the total simulation experience, with each session two to three hours in length, preferably three.

TABLE XXIV

METHODS PREFERRED FOR USE IN FORMAT SELECTED BY PROFESSORS WHO HAVE USED SIMULATION

Methods	Format						Over-all Rank
	Short Workshop (9)[a]		Long Workshop (71)[a]		Regular Class (19)[a]		
	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	
Problem Solving	106	1	778	1	221	1	1
Small Discussion Groups .	90	3	679	2	215	2	2
Role Playing	92	2	526	3	148	3	3
Large Discussion Groups .	55	7	442	4	141	4	4
Audio-Visual, Film and Tape	58	6	416	6	92	8	5
Reading Assignments . . .	62	4	353	7	131	5	6
Student Assignments (Group and Individual .	42	8	426	5	107	7	7
Lecture	60	5	308	8	109	6	8

[a] Number of professors selecting this format as their first choice.

[b] V = Weighted Value, computed by counting each rank one as 8 points, rank two as 7 points, rank three as 6 points, rank four as 5 points, rank five as 4 points, rank six as 3 points, rank seven as 2 points, and rank eight as 1 point.

[c] Composite rank based upon weighted values.

TABLE XXV

RANKING OF FORMAT PREFERRED BY PROFESSORS WHO HAVE USED SIMULATION

Format	Frequency of Ranking					Total Weighted Point Value	Over-all Rank
	1	2	3	4	5		
Longer Workshop (40-60 hours)	43	26	12	10	..	375	1
Long Workshop (20-30 hours)	11	22	36	14	1	280	2
Longest Workshop (over 60 hours)	17	18	10	19	19	244	3
Regular Class	19	12	8	7	39	220	4
Short Workshop (10-20 hours)	9	7	18	31	21	210	5

TABLE XXVI

REGULAR CLASS SCHEDULE PREFERRED BY PROFESSORS WHO HAVE USED SIMULATION

Regular Class Schedule	Regular Class Group	Long Workshop Group	Short Workshop Group	Total
	F[a]	F[a]	F[a]	F[a]
Number of Meetings in Regular Class				
5	3	8	3 --[b]	15
10	7[b]	9	2	18
15	6	20[b]	1	27[b]
20	-	7	-	7
25	-	1	-	1
30	3	4	-	7
Length of Regular Class Meetings				
1 hour	1	-	-	1
1½ hours	3	2	-	5
2 hours	4	10	3 --[b]	17
2½ hours	3[b]	12	1	16
3 hours	7	29[b]	2	39[b]
4 hours	1	-	-	1

[a] F = Frequency of selection by professors listing this format as their first choice.

[b] Median.

In addition to expressing a preference about the major format for the effective use of simulation, the professors were asked to select a preferred arrangement of number of classes and length of each class period in the event of simulation's use in regular class format. It would be possible, therefore, for one who prefers a 40 to 60 hour workshop to select brevity in number of classes and/or length of period for regular class use. But this was not the case. Again, as in Table XXVI the responses show internal consistency since the number of meetings advocated times their length approximates the time desired in major format selected. The medians for those favoring 40 to 60 hour workshops was 15 meetings of three hours each, or 45 hours. The short workshop (10-20 hours) choice had a median of 7½ meetings at 2¼ hours each, or almost 17 hours in all. Regular class advocates had a median of ten meetings and 2½ hours length or 25 hours in all, about two-thirds of the time required in a normally scheduled three semester hour credit course.

Preferred Participants for Effective Use of Simulation

Apparently professors prefer to have participants with mixed backgrounds of experience and training when using simulation. Neophytes, persons with administrative training but little or no experience, were ranked second overall. Limiting participants to experienced administrators only was ranked third, but clearly ahead of trainees with no experience and little administrative training. The choice, "any or all types, it doesn't make much difference," ranked last. Specific tabulations of preference by type of participant are contained in Table XXVII.

TABLE XXVII

RANKING OF TYPES OF PARTICIPANTS PREFERRED BY PROFESSORS WHO HAVE USED SIMULATION

Types of Participants	Frequency of Ranking					Total Weighted Point Value	Over-all Rank
	1	2	3	4	5		
Mixed Groups	41	18	16	16	3	360	1
Neophytes	15	28	31	14	1	309	2
Experienced	19	24	23	17	6	300	3
Trainees	14	15	18	32	11	259	4
"Any and All"	7	6	3	8	67	151	5

When separated by purposes emphasized (Table XXVIII), the mixed group was still preferred for all but one purpose, illustrative, which ranked mixed groups second and trainees first. There were no other major differences apparent in type of participant for each purpose.

The size of the total group of participants desired in the simulation experience (Table XXIX) ranged from 5 or less, specified by one professor, to "no limit" or "any number" specified by four professors, who are grouped for tabulation purposes with the sixteen specifying "over 75" participants as being satisfactory. The median was 24 to 35 participants (stated by thirty-three out of ninety-nine responding). When the activity was specified as a discussion group, the range dropped with two listing 5 or under to seventeen stating 24 to 35 in a group. The median and mode was 12 to 17 in a group, cited by thirty-seven out of ninety-nine responding. However, thirty-two others specified that 6 to 11 participants was the largest group desirable for effective discussion.

Summary: The Effective Simulation Experience

A brief composite description of the clearly preferred responses to these forced-choice questions, and ranking with regard to the most effective use of simulation possible, would contain the elements described below.

Simulation would be used in a workshop at least forty hours in length with a mixed enrollment of twenty-four persons, both experienced administrators and neophytes. The major purpose of the workshop would be the involvement of participants in a real school situation to provide the motivation and central facts for

TABLE XXVIII

PARTICIPANTS PREFERRED TO MOST EFFECTIVELY ACHIEVE PURPOSES[a] SELECTED BY PROFESSORS WHO HAVE USED SIMULATION

Participants	Involvement		Conceptual Learning		Self-evaluation		Practice in Skills		Guidance and Screening		Research		Illustrative		Overall Rank
	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	V[b]	R[c]	
Mixed Groups	142	1	84	1	73	1	32	1	15	1½	7	2½	7	2	1
Neophytes	120	2	65	3	68	3	29	2½	15	1½	7	2½	5	3	2
Experienced	111	3	69	2	70	2	29	2½	11	3½	7	2½	3	4	3
Trainees	103	4	53	4	52	4	25	4	11	3½	7	2½	8	1	4
"Any and All"	67	5	42	5	22	5	10	5	7	5	2	5	1	5	5

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[a] This is a tabulation by the purposes ranked first by professors. Since recruitment was not ranked "first" as a purpose by anyone, it is not included in this table.

[b] V = Weighted Value, computed by counting each rank one as 8 points, rank two as 7 points, rank three as 6 points, rank four as 5 points, rank five as 4 points, rank six as 3 points, rank seven as 2 points, and rank eight as 1 point.

[c] Composite rank based upon weighted values.

TABLE XXIX

SIZE OF GROUPS PREFERRED BY PROFESSORS WHO SELECTED VARIOUS FORMATS AS FIRST CHOICE

Size of Group	In Largest Session				For Group Discussion			
	Long Workshop F[a]	Regular Class F[a]	Short Workshop F[a]	Total F[a]	Long Workshop F[a]	Regular Class F[a]	Short Workshop F[a]	Total F[a]
1 - 5	-	1	-	1	2	-	-	2
6 - 10	-	-	-	-	18	8	5[b]	32
12 - 17	4	-	-	4	29[b]	6[b]	2	37[b]
18 - 23	9	5	-	14	8	1	1	10
24 - 35	25[b]	5[b]	2	33[b]	12	4	1	17
36 - 47	10	3	1	14	-	-	-	-
48 - 59	9	1	2[b]	12	-	-	-	-
60 - 75	2	1	2	5	-	-	-	-
Over 75	11	3	2	16	-	-	-	-

[a] F = Frequency of selection by professors listing this format as their first choice.

[b] Median.

discussion leading to conceptual learning and to self-evaluation by participants of their own administrative behavior. The specific concepts focused upon would be decision-making, perception, group dynamics, and leadership theory. For these purposes, the major materials used would be a complex, fully-detailed set of background materials, several complete and detailed In-Baskets with some taped problems, and outside cases and role plays selected to point up the specific purposes and concepts. The instructor would plan the time primarily around problem solving sessions, discussions in small groups (12 or less), and role playing followed by discussion by the total group. He would use a brief lecture to highlight specific conceptual learnings as the occasion arose. And, judging from the survey results in Chapter IV, participant response would be enthusiastic.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

An overview of the history of school administration revealed changes in concepts about the role of the administrator and about the training program to prepare persons for this role. As professors of education sought to expand and clarify the content of administration and to improve the training procedures, a variety of teaching techniques, often borrowed from other fields, came to the fore. Even though some of the concepts of administration were later discredited, the new techniques survived and were adapted to support new purposes and concepts. Witness the school survey and field problem from the era of scientific-management.

Professors of educational administration sought to expand their repertoire of techniques to accomplish purposes for which the lecture and textbook were inadequate. Foremost among their goals was the desire to aid students in transferring knowledge from the university to the job. To that end they sought to involve students in real problems, where possible on the job itself, and to test theories and concepts by application to the real problems in order to improve the practice of administration.

One of the newest of these techniques was the topic of this study--simulation. Simulating background and problems for executive decision-making grew out of military innovation and was then adapted to business administration and, shortly after, to school administration. Although the use of simulation in the training of school administrators spread rapidly after its first use in 1959, largely through the efforts of the UCEA, little was done about determining the extent of its use or its success in achieving desired purposes. This study attempted to make a status study of the extent of present use and of opinions about its effectiveness. Further, it endeavored to make a start on more rigorous evaluation by comparing use with opinions of how professors felt it would be most effective. Finally, it made a comparison of the present use of simulation with general criteria for judging techniques in teaching school administration.

Results of the status study show extensive use of simulation in teaching school administration in more than eighty colleges and universities. It has been used most frequently in regular class format for administrative trainees and slightly less often in two-to-three-week workshops for experienced administrators or groups of mixed experience. It has been used chiefly to promote conceptual learning, to provide practice in administrative skills, and to involve students in real problems. Within these general purposes professors sought most often to teach decision-making, human relations and group dynamics, communication, and sociological aspects of staff.

To achieve these purposes, professors used In-Baskets and the general background supporting them, both from the UCEA "kit" of materials. Many also used original materials or correlated other films and cases with simulation. In the latter instance (outside materials), professors most often chose those produced or distributed by UCEA. Discussion was the method most often used.

Other frequently used methods were: role-playing, lectures, and audio-visual techniques.

One of the most obvious findings of the study was the high enthusiasm of both professor-directors and participants. This was true even when they cited limitations or specific complaints and drawbacks. Some professors admitted that their feelings of enthusiasm were tempered only by the fact that they were unsure of precisely what was being learned, or of the degree of their knowledge of how to use simulation, or that this was merely another instance of the "Hawthorne effect." Participants were much less restrained in their enthusiasm than were the professors.

Strengths reported most often by professors were role-playing; a common, complex background; no one absolutely correct solution to problems (the discussions of alternate solutions); the possibilities of tie-in to behavioral science concepts; and the degree of involvement and motivation of students. They disagreed on whether it was better for pre-service or in-service training.

Participants chiefly liked their involvement in discussions; the actual work on the In-Baskets; the learning from a variety of conceptual presentations; the realism of background materials; and the professor, himself, as a person who promoted discussion and made effective presentations. They also liked films, role-playing, and the informal climate.

The substantial agreement between professors and participants on the value of simulation is reinforced by what participants reported as changes in their behavior on-the-job. (These reports of changes were made from one to four years after the participation in simulation.)

Participants cited better decision-making (considering more alternatives and consequences and involving others in decisions), better group interaction and staff inter-relationship, and better self-perception and awareness of the administrative role. They also cited a group of factors having to do with improved functioning in the leadership role with the staff: intra-staff communication, supervision and evaluation, faculty meetings, and leadership in groups.

From the degree of agreement reported it does appear that simulation participation makes an imprint in several areas that is at least remembered over a period of time and, if reports are accepted as given, probably causes some definite changes in administrative behavior. These changes occur primarily in human interaction and decision-making, two areas of strengths reported by professors.

While both professors and participants were highly enthusiastic about simulation, each group saw weaknesses and limitations. Some professors felt that simulation, as presented in existing materials, reinforces a stereotype of the administrator as a public relations man, a manipulator of staff personnel, and one who works primarily at his desk. They also complained about the materials: poor quality of films and tapes, technical errors in background, and some items out-of-date. A further limitation recognized the dependency of simulation on the personal ability of the director: the simulation is useful only if the professor is knowledgeable in the behavioral sciences, if he has planned it as part of a total program, if he has the knowledge to interpret the varied evidence to the students, and if he has the stamina to stand the extra work load imposed by the volume and variety of materials. Some professors noted that simulation is still not as real as an internship, and that feedback or branching in items after the first In-Basket are needed.

Participants commented about the poor way in which In-Baskets were done, especially out-of-class use (regular class participants), and insufficient time (workshop participants). They also complained about lack of reality (school not from "this area," in "our type of environment," or at "our grade level"); lack of total time; unanswered questions; assignments not related to simulation; and boring lectures by dominating instructors. Anxiety about grades apparently inhibited some participants.

The weaknesses described by participants appear to support the view of the professors. Some professors apparently are overburdened and pressed for time both in simulation pre-planning and during the experience, and some appear to lack the knowledge in conceptual areas necessary to satisfactorily handle discussions and questions about certain topics. Others may merely lack speaking ability. While these are largely speculative conclusions, they do appear supported by participant complaints about factors most dependent upon the way in which the simulation director approaches them.

Professorial suggestions for "most effective" use would result in comparatively few changes over present use. Simulation would be used in workshops by the large majority. Major purposes would change to involvement and self-evaluation by participants. Workshops would focus on a few specific conceptual areas by careful selection of materials and methods, and specific concepts would be decision-making, perception, group dynamics, and leadership theory.

Conclusions

From these findings, which are derived from the opinions of those professors who have used simulation in teaching school administration, it would appear that the following conclusions are warranted:

1. Simulation is a valuable technique in teaching school administration. Although complex and difficult for professors to learn how to use well, benefits to students appear to be high.

2. Since student motivation and interest are generally conceded to be closely related to learning, simulation seems to be one of the most effective teaching techniques presently available.

3. Simulation, like most other teaching techniques, is not a specific, fit only for one or a limited number of purposes. It can be used to accomplish many purposes, but only a few at one time. It must be carefully planned to achieve these purposes.

4. Simulation is most effective in promoting knowledge of group dynamics, in providing opportunity for improvement of personal skills in group work, and in aiding self-evaluation of one's administrative behavior.

5. The greatest impression made on students and perhaps the area of greatest change in their behavior is in decision-making, the specific purpose emphasized by most instructors.

6. The degree of involvement and reality of role felt by the student appears to be directly connected to the degree of participant satisfaction with simulation and with the amount of change in behavior as a result of learning.

7. The use of simulation is far more expensive in time and money than most alternate techniques, excepting primarily the internship.

8. Simulation is difficult to fit into traditional patterns of teacher load and staffing, student credit, schedules, and classroom space and equipment. However, so are the internship, block-of-time programs, inter-disciplinary study, and most other departures from the lecture or textbook.

9. Although amounts and types of learning are difficult to measure and no rigorously controlled data are available, simulation appears to be at least as effective as alternate techniques in teaching concepts and may well be somewhat better in promoting actual changes in behavior.

10. Provisions for individual feedback to participants regarding the consequences of their decisions is probably the single most needed improvement in materials.

11. Methods of enabling participants to be involved in solving problems in other ways than at their desk are needed.

12. There is evidence that some professors are using the UCEA simulation "kit" as recommended, without giving much effort to personal planning, selection of purposes, of focus of activities and materials (despite the fact that UCEA does encourage individual analysis and planning before use). However, even among those following UCEA advice on other matters, a large number of professors use simulation in regular classes contrary to UCEA advice.

13. Telling professors about simulation or even demonstrating it to them are inadequate methods of increasing its use. Better techniques for training simulation directors must be encouraged.

14. Simulation materials may become a severe handicap to use in promoting new theories and concepts if they are not consistently

revised, and if other simulation materials are not made available. Personnel and money to do this job are a major obstacle but must be found if simulation is to remain a viable technique.

15. Although difficult to evaluate, the tools for better assessment of the results of simulation are known or possible. Money and personnel are greater obstacles to rigorous evaluation than techniques of measurement.

In Chapter IV reference was made to a group of questions posed by Culbertson in the first look at the worth of simulation in 1960.[1] This study does not provide complete and final answers to all of them, but it does offer evidence to support these tentative conclusions:

1. Unless the student sees the relationship of an assigned reading or other task to the basic simulated role he is playing, the assignment is not likely to be effective. Reference to sources (which are easily available) at a time of high student interest promotes individual student reading.

2. Concepts of administration should be introduced, in at least overview form, before participation in simulation, and then in detail as they arise from actual problems studied (judging from responses by participants).

3. Clearly, all-day sessions over several weeks' time produces highest student involvement, if all other factors are equal.

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[1] Jack A. Culbertson, "Simulated Situations and Instruction: A Critique," Simulation in Administrative Training (Columbus, Ohio: The University Council for Educational Administration, 1960), pp. 44-46.

4. The frequency and degree of transfer from the simulation context to the job are not known. That some takes place is obvious and that participants try to transfer is also evident. Apparently some professors aid this process more than others.

5. If professors limited materials and discussions to only those in the Jefferson simulation, there would, indeed, be danger of teaching about average, present-day practice. Since so many instructors do bring in other materials and use many techniques to emphasize new developments, this limitation is not as severe as it might be. It does point up the need for additional materials and for extensive renovation of present materials.

Recommendations for Improved Use of Simulation

The difficulties discussed above are not insurmountable. In fact, there are pilot or experimental programs now in existence which offer solutions to many of these problems. However, almost all of them depend upon having sufficient funds available to implement the solution, thus compounding one of the present limitations--expense.

1. The need for feedback on consequences of decisions made and for variations in future In-Baskets according to the manner in which first items are handled suggests the need for programming a teaching machine or computer to make responses and new items for each individual

participant.[1] Manual branching of items is another possible way to provide such feedback.

2. There is a need for more realism in problem situations in addition to the In-Basket at one's desk. Filmed problems of which the participant is a part and which change as he changes response would add to the reality and get away from the emphasis on written work.[2]

3. It is possible to use new techniques in diagramming flow-charts of administrative behavior to program an entire school so that simulation participants can react with all factors in the

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[1] Richard L. Wing, "Use of Technical Media for Simulating Environments to Provide Individual Instruction," Progress Report to U.S. Office of Education on Cooperative Research Project 1948 (Yorktown Heights, N.Y.: North Westchester Board of Cooperative Educational Services, 1964) (Mimeographed.) Reports the use of an IBM Typewriter Console joined to a computer. The learner types in responses and immediate feedback is typed back to him on the machine; John Forbes and Darrell S. Willey, The School Personnel Management Game (University Park, New Mexico: The Academic Planning Tool Center, New Mexico State University, 1963). The only form of gaming with reference to school administration currently available. The authors have prepared computer programs and instructions to score and get feedback on decisions by an administrative team regarding school personnel problems; and John E. Coulson, Computers in Programmed Instruction and Educational Data Processing, SP series-950 (Santa Monica, California: System Development Corporation, 1963). A discussion of several different approaches to programming problems to give feedback to the learner about the results of his decisions. Many applications require highly sophisticated knowledge of computers to be used.

[2] Bert Y. Kersh, Classroom Simulation: A New Dimension in Teacher Education, Final Report of NDEA Research Project 886 (Monmouth, Oregon: Oregon State System of Higher Education, 1963). This study reports the development and highly creative use of branching via three projectors which portray the consequences of one's actions both audibly and visibly.

situation.[1]

4. The use of new telephone recording and playback systems would make possible some types of telephone problems. (This is now done at one workshop by using hotel rooms for workspace and the switchboard to transmit phone-message problems.)

5. To correct much of the feeling of working in isolation, simulations which depend upon administrative team approaches and group decisions would help. The degree of competition between schools or between districts necessary to imitate business simulation is a problem.[2]

6. The large amount of background data which must be assimilated has been a deterrent for some. One alternative would be to let the group derive its own background as it proceeds and, then, hold the group

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[1] Robert L. Egbert and John F. Cogswell, System Design for a Continuous Progress School, Parts I and II, Technical Memoranda 1493-103 and 104 (Santa Monica, California: System Development Corporation, 1964). These studies report the detailed and complex simulation of an entire high school via a system analysis entered into a computer program and memory system. This enables the researcher to study the consequences of various actions upon variables (pupils, teachers, and program) without actually affecting the School being simulated. There are both research and training capabilities inherent in such a simulation.

[2] John Forbes and Darrell S. Willey, The School Personnel Management Game (University Park, New Mexico: The Academic Planning Tool Center, New Mexico State University, 1963), as described on the preceding page; and Harold Guetzkow, "A Use of Simulation in the Study of Inter-Nation Relations," Simulation in Social Science: Readings, edited by Harold Guetzkow (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962). Guetzkow reports a series of simulations of relationships between nations, with each nation simulated by a team representing its top officials. The team aspects of simulation point up some of the variables in communication and decision-consensus not now possible in the Jefferson simulation.

to this background, interjecting set problems at different points to get reactions.[1]

7. Another approach to background is to use none at all and to rely on each participant to use his own background to solve a common problem. The use of a scrambled workbook with typical problem input and branched feedback is one technique possible here.[2]

8. The use of the workshop group members and of their actions as the real data for solving a problem is an interesting way to get involvement. By having participants be members of an administrative staff that needs to develop an organization, job descriptions, personnel policies, and meeting procedures, and then by following through on the decisions, participants would get first-hand feedback on consequences of their actions.[3]

9. In order to fix learning in the participant's behavioral pattern, various proposals to implement Kurt Lewin's three-

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[1] Lee O. Thayer, "An Experimental Program in Communication Training," Studies in the Development of Administrators (Wichita, Kansas: College of Business Administration, Wichita State University, 1963). (Mimeographed.) An account of a year-long course, now sub-titled "The Artificial Society," in which students compete for grades by producing written products (research papers) for their advertising company. No background detail is given other than basic rules of inter-action, but all actions are recorded. Students build their own "society," and are held to the consequences of both present and prior actions.

[2] Robert Sweitzer, Oklahoma State University, has developed duplicated copies of variations of this technique, on file with the author.

[3] Fred P. Barnes, "The Illinois Staff Utilization Studies," The Bulletin of the National Association of Secondary-School Principals, 44:252, January 1960, pp. 203-210. Barnes reports a unique series of training workshops in which the participants themselves are the personnel in the simulation, and the operations (in this case, research) are carried out with the data from their own behavior.

step group learning scheme (Unfreeze, Internalize, Re-freeze)[1] have been proposed. In simulation, the first two steps are handled almost automatically by the simulation materials and discussion sessions. Re-freezing could be aided by using group decisions about what they could change on the job with the knowledge that a follow-up check will be made. Follow-up meetings of the same group, over several years, to attest to the degree of success in application would aid even more.

10. Both participants and professors have commented about the added space requirements for effective use of simulation. Only a few departments of educational administration have any specialized physical facilities and fewer (perhaps only Oregon) have facilities designed with simulation in mind. Such specialized facilities, planned for multiple use, would increase student involvement by heightened realism and would decrease professor work-load.[2]

11. A manual of "how-to-do-it" specifics as tested in use by professors should be developed to help new users avoid pitfalls found by others. It is especially recommended that such a manual include a

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[1] Kurt Lewis, "Group Decision and Social Change," Readings in Social Psychology, edited by Eleanor Maccoby, Theodore Newcomb, and Eugene Hartley (New York: Henry Holt & Co., 1958), pp. 202-211. This report of several experiments in the social psychology of groups during World War II both establishes an hypothesis and gives experimental evidence about it. The technique of using decisions before a group as a factor in implementing changed behavior has implications here.

[2] Paul S. Greenlaw, Lowell W. Herron, and Richard H. Rawdon, Business Simulation (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1962), pp. 179-184. This section of a chapter on administrative fundamentals of simulation describes the development of physical facilities for the use of simulation and gaming at Clarkson College of Technology (N.Y.). Similar but more elaborate facilities can be found at the American Management Association Academy at Saranac Lake, N.Y. and System Development Corporation, Santa Monica, California.

section on how to help participants orient themselves to their new role and on how to clarify the purposes and procedures of simulation to avoid misunderstanding.[1]

12. The ability of the individual professor who is directing a simulation experience appears to be important to the amount of learning by participants. One way to improve the present skills of professors would be to train them in a more direct manner for their use of simulation. This might be done by the following methods:

a. Include techniques in the use of simulation in the training programs of persons planning to become professors of school administration;

b. Include training in the behavioral sciences as a part of the background required of these future professors;

c. Offer a low cost workshop (perhaps during the late summer) for professors to participate in a full two or three weeks workshop similar to those now given to administrators, with occasional seminars for discussing the technique and materials from the instructor's viewpoint, or;

d. Inaugurate a planned program of paid apprenticeships by assigning interested professors as assistants to experienced directors of simulation workshops.

13. Professors who direct simulation should be encouraged to keep an evaluative diary during their workshops in order to get data

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[1] In a telephone interview with the author, on April 30, 1965, Jack Culbertson reported that the UCEA is now compiling such a looseleaf manual to be available after June 1965, and is developing an additional listing and analysis of all of the cases in educational administration now in existence, and of the films about teachers-in-action available for use by colleges.

which might provide leads regarding personal techniques which correlate highly with participant or other evaluations of effective teaching.[1]

14. A planned conference built around a face-to-face interchange of ideas by experienced users of simulation would be extremely valuable. Although this is now done informally at several meetings the ideas exchanged are not widely disseminated. Such a conference should involve the presentation of research papers by professors about their use of simulation, as well as informal discussion and evaluation sessions to generate further ideas for improving the use of simulation.[2]

Recommendations for Further Study

1. Most obvious is the need for objective study of the specific effects of simulation. Comments about the difficulties inherent in evaluating changes within the limited time of a simulation workshop indicate the need for some type of evaluation of the participant and/or his administrative behavior before involvement in

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[1] Irving R. Weschler and Jerome Reisel, Inside a Sensitivity Training Group (Los Angeles: Institute of Industrial Relations, University of California, 1960). This book records the reactions of participants, the trainer, and a phychologist-observer to an intensive training-group experience. It concludes with some evaluative comments which are extremely helpful to others who might wish to function as trainers. In the process, the authors feel they have improved their own handling of T-groups. Although not a part of this book, the questions raised by the author could well lead to direct research about the validity of certain training techniques.

[2] Simulation and Gaming: A Symposium, AMA Report Number 55 (New York: General Management Division, American Management Association, Inc., 1961) reports the proceedings of just such a conference by simulation users in the field of business.

simulation, and again after several different periods of time, back on the job. The findings of such studies are essential to building use of simulation on a firm foundation of knowledge about its effects.

One specific model for such a study would begin with identification of participants at least six months before the workshop. Prior to the workshop various instruments would be used to evaluate the participant's administrative behavior in one or more selected areas. Although several instruments have already been developed for such use (those used in the research study that produced the Whitman simulation materials are good examples) other instruments should be developed to expand the scope of evaluation. If the participant is an experienced administrator, data should be obtained from those with whom he works (peers, subordinates, and superiors) as well as from the participant himself. Where possible it seems likely that such evidence as can be obtained by indirect or incidental means would have more validity for research use than data obtained by direct questioning for known use in connection with the workshop.

Some professors have already issued cautions about the difficulty of measuring improvement in participants who already score near the top of the evaluation scales concerned.[1] Therefore, it would seem appropriate to screen candidates for the study carefully, perhaps including limited numbers of participants who were scored at different pre-workshop performance levels of the criteria being measured. This would enable the director of the research study to match the participants in each experimental workshop according to these performance levels. Thus one type of control would be introduced.

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[1] See comments on pages 136 and 142.

In addition, it would be necessary to attempt to control as many extraneous variables as possible. If two large universities are utilized in the study, it would be possible to conduct the study over a period of two workshops with agreement by all professors involved upon the concepts and purposes to emphasize. The first workshop at University A would utilize simulation techniques, while at University B the workshop would use conventional techniques. However, the purposes selected for emphasis would be the same at both institutions. For the second workshop the format would be reversed, but the professor-director teams and focal purposes would be the same. This time University A would use conventional techniques and University B simulation. The use of matched-pairs of participants, on the basis of pre-workshop evaluations, and of identical instructional teams and purposes should hold these three variables as constant as possible in this type of research.

The conclusion of each workshop would be followed by immediate evaluation of participant performance by means similar to those used in the pre-workshop evaluation. After six months and after two years, parallel evaluations would measure the amount of carryover to application on the job.

Simpler versions of this pre-test, control and experiment, post-test format would be easier to manage but perhaps less satisfactory.

2. More limited studies are recommended within the simulation experience itself, particularly those of two or more weeks duration.

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These might well concentrate on changes in attitude and/or knowledge about one specific conceptual area selected as the focal point of the workshop.

3. A study of those professors who have attended UCEA-sponsored workshops promoting the use of simulation but who have not yet used it should add much information to that contained in this study. It was felt that an appropriate place to begin this study of the effectiveness of a new teaching strategy was with those who had actually used it. However, this does not exclude the fact that quite different, but relevant kinds of data might be obtained from persons who considered its use but have not done so.

4. Another possible study might be a detailed analysis of the differences between the ways in which simulation is used by professors judged to be experienced and effective in its use and the ways it is used by inexperienced or ineffective simulation directors. It seems probable that the greatest difficulty in such a study will be a means of securing agreement about who is effective. Perhaps a jury technique by fellow-professors or overall judgments by participants offers the most hope for solution.

5. It is recommended that careful study of administrative behavior during simulation might be used as an heuristic device or model to develop leads into further understanding of administrative processes, as has been done by Guetzkow in international relations,[1]

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[1] Richard A. Brody, "Varieties of Simulations in International Relations Research," Simulation in International Relations, Harold Guetzkow and others (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963), pp. 190 ff.

and System Development Corporation with simulated high schools.[1]

6. Although not a direct concern of this study, the findings do point up a need for a study, either generally or limited to school administration programs, of the limitations imposed upon instructional effectiveness by institutional and traditional demands, such as the class schedule, room size, credit hours and transfer of credit, faculty load policies, and budgetary restrictions.

7. The findings of the above study would then be a starting point for other studies regarding the improvement of conditions in each area. Most urgently needed is a study of sources in financial support for several areas of educational administration: aid to the degree candidate; to institutions for faculty employment, for development and dissemination of instructional materials and equipment, and for long-range research and evaluation. Stop-gap measures are unrealistic as costs soar and training programs become more costly and complex.[2]

8. A study reporting how leaders in innovation in instructional programs at several universities have proceeded would be more valuable than the typical report of what the new innovation is and does.

9. Research programs which would create simulations of several different types are needed to point up situational variables in

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[1] John F. Cogswell, et al, "Construction and Use of the School Simulation Vehicle," Technical Memorandum 2084 (Santa Monica, California: Systems Development Corporation, 1964).

[2] Paul B. Jacobson, "Costs of Preparing the School Administrator," A Forward Look--The Preparation of School Administrators 1970, edited by Donald E. Tope (Eugene, Oregon: Bureau of Educational Research, University of Oregon, 1960), pp. 90-91.

administration:

a) a detailed background with several different school organizations, or

b) several different backgrounds with the same school organization in each.

10. A research program to develop a detailed simulation of any school situation which is hard to send trainees into for observation or work. Especially needed now is a simulation of a school in an area of culturally-deprived children for both teacher and administrative training, and heuristic purposes in developing better techniques for use in such schools.

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APPENDIX A

PROFESSORS, AND THEIR INSTITUTIONS, WHO HAVE USED SIMULATION PRIOR TO SEPTEMBER, 1964.

[4]Max Abbott
Auburn University, Auburn, Alabama

[2]Lester Anderson
University of Michigan, Ann Arbor, Michigan

Joseph Azzarelli
New York University, New York
(formerly at University of Oregon, Eugene, Oregon)

[2]Don Barbee
San Francisco State College, San Francisco, California

Fred P. Barnes
University of Illinois, Urbana, Illinois

J. S. Bash
University of Virginia, Charlottesville, Virginia

Norton Beach
Teachers College, Columbia University, New York

[2]Robert E. Belknap
San Fernando Valley State College, Northridge, California

[1]Wailand Bessent
University of Arizona, Tucson, Arizona

[3]Virgil Blanke
Superintendent of Schools, Massilon, Ohio

---

[1] Responded only to Questionnaire #1.

[2] Responded only to Questionnaire #2.

[3] Did not respond to either questionnaire. Use determined through other means.

[4] Supplied evaluation summaries by participants and/or lists of participants for Questionnaire #3 mailings in addition to responding to both questionnaires.

All others responded to both questionnaires.

Gerald Bosch
Pennsylvania State University, University Park, Pennsylvania

Norman J. Boyan
Stanford University, Palo Alto, California

Howard Bretsch
University of Michigan, Ann Arbor, Michigan

Conrad Briner
Claremont Graduate School, Claremont, California

[3]William R. Broadhead
Washington State University, Pullman, Washington

Alan F. Brown
University of Alberta, Calgary, Alberta, Canada

[2]Lewie W. Burnett
California State College, Hayward, California

Donald Bush
Central Michigan University, Mount Pleasant, Michigan

[2]Jack Childress
Boston University, Boston, Massachusetts

[2]Harold Church
Indiana University, Bloomington, Indiana

Clifton Claye
Texas Southern University, Houston, Texas

[4]William Coffield
Kansas State University, Manhattan, Kansas

Dan Cooper
University of Michigan, Ann Arbor, Michigan

Donald Cruickshank
State University College at Brockport, Brockport, New York

[2]Jack Culbertson
University Council for Educational Administration, Columbus, Ohio

Luvern Cunningham
University of Chicago, Chicago, Illinois
(formerly at University of Minnesota, Minneapolis, Minnesota)

Don E. Davis
College of the Ozarks, Clarksville, Arkansas
(formerly at Wayne State University, Detroit, Michigan)

Hugh Davison
Pennsylvania State University, University Park, Pennsylvania

[2]Hendrick C. DeBruin
Montana State College, Bozeman, Montana

Ray C. Dethy
Northwestern University, Boston, Massachusetts

Donald Duncanson
Indiana State Teachers College, Terre Haute, Indiana

[3]Harold Dyck
University of California, Berkeley, California

Mary Endres
Purdue University, Lafayette, Indiana

F. Enns
University of Alberta, Edmonton, Alberta, Canada

[1]Donald Erickson
University of Chicago, Chicago, Illinois

Charles Faber
Iowa State University, Ames, Iowa

[4]Frank Farner
University of Oregon, Eugene, Oregon

[4]George E. Flower
University of Toronto, Toronto, Ontario, Canada

A. L. Fritschel
Western Illinois University, Macomb, Illinois

[1]Keith Goldhammer
University of Oregon, Eugene, Oregon

Samuel Goldman
New York University, New York City

[2]John Greer
University of Arizona, Tucson, Arizona

Daniel E. Griffiths
New York University, New York City

Henry M. Gunn
San Jose State College, San Jose, California

[2]William Hageny
State University College, New Paltz, New York

Steve Hencley
University of Illinois, Urbana, Illinois

[3]Curtis Henson
University of Missouri at Kansas City, Kansas City, Missouri

Howard Holt
San Diego State College, San Diego, California

Richard A. Houseman
San Diego State College, San Diego, California

Ben C. Hubbard
Illinois State Normal University, Normal, Illinois

[4]C. W. Hunnicutt
Syracuse University, Syracuse, New York

Laurance Iannaccone
Claremont Graduate School, Claremont, California
(formerly of Washington University, St. Louis, Missouri)

[2]Glenn Immegart
University Council for Educational Administration, Columbus, Ohio

[1]David Jackson
University of Illinois, Urbana, Illinois

Homer Johnson
Utah State University, Logan, Utah

[3]James Jones
Temple University, Philadelphia, Pennsylvania

[2]Ray L. Jones
San Fernando Valley State College, Northridge, California

James Jordan
Marshall University, Huntington, West Virginia

Richard Jungers
Oklahoma State University, Stillwater, Oklahoma

Merle Kauffman
Bradley University, Peoria, Illinois

[3]Zeno B. Ketterle
Washington State University, Pullman, Washington

[2]R. E. Keye
University of Mississippi, University, Mississippi

[1]E. A. King
Alfred University, Alfred, New York

Charles Lienert
San Diego State College, San Diego, California

A. T. Lindley
Purdue University, Lafayette, Indiana

James Lipham
University of Wisconsin, Madison, Wisconsin

[4]Richard C. Lonsdale
Syracuse University, Syracuse, New York

[2]William McCann
Chico State College, Chico, California

Kenneth E. McIntyre
University of Texas, Austin, Texas

[4]Harold J. McNally
Field Enterprises, Chicago, Illinois
(formerly at Teachers College, Columbia University, New York)

[3]Charles Manley
San Fernando Valley State College, Northridge, California

Frank Markus
University of Missouri at Kansas City, Kansas City, Missouri

[2]Evelyn B. Martin
Florida A & M University, Tallahassee, Florida

Frank E. Martindale
State College of Iowa, Cedar Falls, Iowa

Jack W. Miller
George Peabody College, Nashville, Tennessee

[3]Donald Mitchell
Harvard University, Cambridge, Massachusetts

William Monahan
University of Oklahoma, Norman, Oklahoma

[3]Hollis A. Moore
University of Arizona, Tucson, Arizona

Lyle Morris
Hofstra University, Hempstead, New York

M. Chester Nolte
University of Denver, Denver, Colorado

Robert S. Ohm
University of Oklahoma, Norman, Oklahoma

J. F. O'Malley
St. Bonaventure University, St. Bonaventure, New York

John O'Neal
Lehigh University, Bethlehem, Pennsylvania

Ralph S. Owings
Mississippi Southern University, Hattiesburg, Mississippi

Jack Peterson
Western Illinois University, Macomb, Illinois

Joseph Peyser
Hofstra University, Hempstead, New York

[4]William L. Pharis
University of Nebraska, Lincoln, Nebraska

Matthew J. Pillard
University of Pennsylvania, Philadelphia, Pennsylvania

Donald G. Pollock
St. Cloud State College, St. Cloud, Minnesota

Max Poole
University of Nebraska, Lincoln, Nebraska

[4]Samuel H. Popper
University of Minnesota, Minneapolis, Minnesota

Milton Pullen
University of Rochester, Rochester, New York

[2]Lloyd Rahn
Bradley University, Peoria, Illinois

[3]John J. Readling
State University College at Oswego, Oswego, New York

[3]Theodore Reller
University of California, Berkeley, California

Jack D. Roberts
Queens College, Flushing, New York

Gale Rose
Western Reserve University, Cleveland, Ohio

Eddie E. Sage
State University College at Buffalo, Buffalo, New York

C. Jackson Salisbury
University of Virginia, Charlottesville, Virginia

Norman Sam
Lehigh University, Bethlehem, Pennsylvania

James L. Sampson
State University College of Oneonta, Oneonta, New York

[4]Marvin Schadt
Kansas State Teachers College, Emporia, Kansas

Alan T. Seagren
University of Nebraska, Lincoln, Nebraska

[2]John C. Seiferth
Queens College, Flushing, New York

[2]W. Frederick Staub
Ohio State University, Columbus, Ohio

John H. Suehr
Michigan State University, East Lansing, Michigan

Louis Swanson
University of Kentucky, Lexington, Kentucky

Robert Sweitzer
Oklahoma State University, Stillwater, Oklahoma

Donald Tarbet
University of North Carolina, Chapel Hill, North Carolina

[1]Joseph C. Taylor
Montgomery County, Maryland
(formerly at Arkansas State College, Jonesboro, Arkansas)

Michael P. Thomas
University of Texas, Austin, Texas

James H. Timmons
Kansas State College of Pittsburg, Pittsburg, Kansas

[4]Francis Trusty
University of Rochester, Rochester, New York

Karl J. Vander Horck
University of Notre Dame, Notre Dame, Indiana

[1]Fred Vescolani
Michigan State University, East Lansing, Michigan

[4]Durlyn E. Wade
State University College, Geneseo, New York

William Wayson
    Syracuse University, Syracuse, New York

[4]Morris J. Weinberger
    Wichita State University, Wichita, Kansas

William Wetherill
    San Diego State College, San Diego, California

[2]Prince B. Woodard
    Temple University, Philadelphia, Pennsylvania

Hazlett H. Wubben
    University of Colorado, Boulder, Colorado

[4]Richard Wynn
    University of Pittsburgh, Pittsburgh, Pennsylvania

Marvin W. Ziesmer
    Superintendent of Schools, Cedar Falls, Iowa

PROFESSORS WHO WERE INTERVIEWED BY AUTHOR, EITHER IN PERSON OR BY TELEPHONE.

Max Abbott
Auburn University, Auburn, Alabama

Joseph Azzarelli
New York University, New York
(formerly at University of Oregon, Eugene, Oregon)

Gerald Bosch
Pennsylvania State University, University Park, Pennsylvania

Alan F. Brown
University of Alberta, Calgary, Alberta, Canada

William Coffield
Kansas State University, Manhattan, Kansas

Jack Culbertson
University Council for Educational Administration, Columbus, Ohio

Luvern Cunningham
University of Chicago, Chicago, Illinois
(formerly at University of Minnesota, Minneapolis, Minnesota)

Frank Farner
University of Oregon, Eugene, Oregon

Keith Goldhammer
University of Oregon, Eugene, Oregon

Steve Hencley
University of Illinois, Urbana, Illinois

Laurence Iannaccone
Claremont Graduate School, Claremont, California
(formerly at Washington University, St. Louis, Missouri)

Glenn Immegart
University Council for Educational Administration, Columbus, Ohio

Richard Lonsdale
Syracuse University, Syracuse, New York

Frank Markus
University of Missouri at Kansas City, Kansas City, Missouri

Harold J. McNally
Field Enterprises, Chicago, Illinois
(formerly at Teachers College, Columbia University, New York)

Jack W. Miller
George Peabody College, Nashville, Tennessee

William L. Pharis
University of Nebraska, Lincoln, Nebraska

Max Poole
University of Nebraska, Lincoln, Nebraska

Samuel H. Popper
University of Minnesota, Minneapolis, Minnesota

Marvin Schadt
Kansas State Teachers College, Emporia, Kansas

Louis Swanson
University of Kentucky, Lexington, Kentucky

Michael P. Thomas
University of Texas, Austin, Texas

James H. Timmons
Kansas State College of Pittsburg, Pittsburg, Kansas

Francis Trusty
University of Rochester, Rochester, New York

Richard Wynn
University of Pittsburgh, Pittsburgh, Pennsylvania

WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208
PHONE MUrray 2-[illegible]

COLLEGE OF EDUCATION

LETTER TO ACCOMPANY SURVEY ON USE OF SIMULATION

APPENDIX B

Since your institution is one which is listed as offering coursework in the preparation of school administrators, I would like to ask your cooperation in supplying the requested information on the enclosed postal card.

I am completing a doctoral project at Teachers College, Columbia University, on "The Use of Simulation in the Teaching of School Administration" and this information is necessary for me to gather data for my project.

Please return the card regardless of your answer.

Thank you for your assistance.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208
PHONE MUrray 3-7561

COLLEGE OF EDUCATION

LETTER TO ACCOMPANY SURVEY ON USE OF SIMULATION

Since your institution is one which is listed as offering coursework in the preparation of school administrators, I would like to ask your cooperation in supplying the requested information on the enclosed postal card.

I am completing a doctoral project at Teachers College, Columbia University, on "The Use of Simulation in the Teaching of School Administration" and this information is necessary for me to gather data for my project.

Please return the card regardless of your answer.

Thank you for your assistance.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

POST CARD INCLUDED WITH LETTER NUMBER ONE

Name of School ____________________________________

Have the Whitman School simulation materials published by UCEA or any other simulation experiences of any type ever been used at your institution in training school administrators?

Yes ____________ No ____________

If yes, please give me the names and addresses of the persons on your faculty who have made such use of simulation materials:

____

____

WICHITA STATE UNIVERSITY
WICHITA, KANSAS 67208
PHONE MUrray 3-7561
COLLEGE OF EDUCATION

LETTER TO ACCOMPANY Q. #1 OPEN-ENDED QUESTIONNAIRE TO PROFESSORS WHO HAVE USED SIMULATION

I am writing to ask for information relative to your experiences in using simulated materials in the teaching of school administrators. Your name has been given to me as one who has used these materials.

I am working on a project under the direction of Dr. Norton Beach of Teachers College, Columbia University, entitled "The Use of Simulation in Teaching School Administration." The study has been designed to contribute to the sharing of knowledge about the use of simulated materials, and hence, to more effective use of simulation by other professors of school administration.

The questionnaire is designed to determine the range and variety of purposes, materials and teaching methods which have been used in connection with simulation in the training of school administrators, and to make some initial steps in the evaluation of the success of each. It is hoped that from this study can grow a definitive analysis of the times, manner and personnel for the most effective use of simulation at different stages in the training of school administrators.

If you have a prepared, detailed description of your experiences in the use of simulation, or one evaluating its effectiveness, I would greatly appreciate receiving a copy in addition to your answers to the questionnaire. In general, if any of the questions could be more fully answered by a copy of some material which you already have in duplicated form, I would be most grateful if you would enclose a copy of each when you return the questionnaire.

Thank you very much for your assistance. I will be happy to send you a copy of the results of this survey if you are interested.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

OPEN-ENDED QUESTIONNAIRE (Q.#1) TO PROFESSORS WHO HAVE USED SIMULATION

A SURVEY OF THE METHODS AND MATERIALS OF SIMULATION IN THE TEACHING OF SCHOOL ADMINISTRATION

Name of University____
Professor in charge of
simulation experience____________________________________

Address____

1. Purposes and objectives of past simulation experiences. (If these were not formally delineated in advance, merely describe intended purposes briefly.)

2. How have you followed-up student responses to the In-Basket items?

page 2

3. Please state your own overall opinion of the value of the use of simulation in teaching school administration. (Especially include comments upon what you felt were the most effective methods and materials, and why, as well as the limitations and weaknesses you found.)

4. Simulation materials used (UCEA Whitman materials only) Check those used. (Note: Leave item #4 blank if Whitman materials were not used.) (Item #10 is for persons who have used non-UCEA simulation materials.)

Background Materials

Community Study ____
Faculty Study ____
State School Laws ____
Faculty Handbook ____
Board Policies & By-Laws ____
Faculty Personnel Folders ____
Background Film: "You Will Enjoy Teaching in Jefferson" ____
Filmstrip Tour of Jefferson ____
Test of Background Knowledge ____
Miscellaneous Materials:
Floor Plan, Faculty Roster, Class Sizes, Test Results, Census, Etc. ____

In-Basket Materials

	Whole	In Part
A	____	____
C	____	____
D	____	____
Supt.	____	____
Business	____	____
Secondary	____	____
X	____	____
Original Items	____	____

Taped Problems

Elementary Interruptions: Child Sick in Class ____
Fire Drill & Accident ____
Superintendent Interruptions: Morals Charge ____
Chem Lab Explosion ____
Background Tapes: Teachers Lounge ____
PTA Speaker ____
Supt & Principals Meeting ____
Talk by Supt (Jr.Hi.Addition) ____
School Board Meetings ____
School Psychologist Conference ____
Conference Teacher & Parent ____

Kinescopes of Teachers

First Grade (Arithmetic) ____
Third Grade (Social Studies) ____

Interaction Problem

Selecting a New Principal ____

Other Whitman Materials used (describe)

5. Non-Whitman Materials used during simulation experience. Give Title and Source.

Films:

Cases:

Other:

6. Format within which simulation was used. (Indicate the number of times you have used each type, and the total number of hours spent in each.)

Regular Classes ____________

Seminars ____________

Other--describe fully:

____

____

Workshops: One Week ________

Two Weeks ________

Three Weeks ________

7. Participants in simulation. (Indicate level and experience by filling in the letter(s) of the appropriate experience level in the blanks of the corresponding administrative level.)

Level

Elementary ____________
Secondary ____________
Central Office ____________
Mixed levels ____________
Non-school Personnel ______

Experience

A. Administrative Trainees (no admin. exp.)
B. Experienced Administrators
C. Mixed experienced and inexperienced admin.

8. Teaching methods used in connection with simulation. (Check all used)

Lecture ____________
Guest Lecture ____________
Discussion:
- a) total group ________
- b) large sub-groups ________
- c) small (8 or less) sub-groups ________
- d) brainstorming ________

Reports by:
- a) individual participants __
- b) sub-groups ________

Role Playing:
- pre-structured ________
- unstructured ________

Audio-Visual Aids:
- Films ________
- Filmstrip ________
- Slides ________
- Tape Recordings ________
- Overhead projector ________
- Opaque projector ________
- Other (Specify) ________

Individual study periods ________

Visits to actual school situations (field problems) ___

Written assignments:
- in sessions ________
- outside sessions ________

Evaluation methods used:
- objective tests ________
- essay exams ________
- opinion responses only, reactions to simulation ____

Other methods used during simulation (describe briefly)

9. **Were grades assigned for participation in the simulation experience?**
Yes ________ No ________
If "Yes," please describe the criteria used to determine the grades.

10. **Have you developed any supplementary materials or problems of your own to use in connection with the UCEA simulation materials? Please describe briefly, or enclose a copy of them. Especially describe the variety of materials used. (Use other side of any or all sheets if needed.)**

11. **If anyone at your institution is doing, or has done, a study of any of the aspects of the use of simulation, please list names and addresses.**

12. **Please list the names of other professors or administrators you know who have directed simulation experiences on your campus, or in your area.**

13. **Would you like a copy of the results of this survey when it is completed? Yes ______ No ______**

WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208
PHONE MUrray 3-7561

COLLEGE OF EDUCATION

LETTER TO ACCOMPANY SECOND COPY OF Q. #1 OPEN-ENDED QUESTIONNAIRE ON SIMULATION

Last spring I sent you a questionnaire regarding your use of simulation in training school administrators. While I am aware of how busy you probably are and while I dislike taking your time for "just another questionnaire", I had hoped to include your experience in the survey.

If you have had experience in using some form of simulation, perhaps you will be able to complete the enclosed copy at this time. If you can include a copy of the schedule for the simulation experience or any evaluation you might have made with participants, these would also be appreciated.

I am sorry to be so persistent, but your viewpoints are valued for the successful completion of this survey.

Thank you for your assistance.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

MJW/bw
Enclosure

WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208
PHONE MUrray 3-7561

College of Education

LETTER TO ACCOMPANY Q. #2 FORCED-CHOICE QUESTIONNAIRE
TO PROFESSORS WHO COMPLETED Q. #1

Some time ago you responded to an open-ended questionnaire about your use of simulation in training school administrators. The results of that survey will be sent to you shortly.

However, several respondents indicated fairly emphatically that if they directed another simulation experience, knowing what they know now, they would make many changes in what they did. For several persons, one could fairly easily infer what these changes would be. But rather than make such inferences on my own, it seemed preferable to get your direct responses to a forced-choice instrument on how to use simulation most effectively.

I am quite aware of the additional burden I am imposing on you but it has been the feeling of several leaders in the use of simulation that such an instrument may turn up data valuable to us all. Please try to complete it fully and return as soon as possible. (Answer in terms of your convictions of how to obtain maximum benefits from a simulation experience, even if it would require materials or circumstances not available to you now.)

Thank you for this assistance "above and beyond the call of duty." I shall also send you a copy of these results as soon as possible.

Sincerely,

Morris J. Weinberger

WICHITA STATE UNIVERSITY
WICHITA, KANSAS 67208
PHONE MUrray 3-7561

COLLEGE OF EDUCATION

LETTER TO ACCOMPANY Q. #2 FORCED-CHOICE QUESIONNAIRE
TO PROFESSORS NOT RESPONDING TO Q. #1

Last spring you were sent a questionnaire with regard to your use of simulation in the preparation of school administrators. Although you did not respond to this questionnaire, it is our desire to get reactions for "best" or most effective techniques in using simulation from all persons who have made such use. Your evaluation and reactions to simulation, as it applies to the training of school administrators, are valuable to this study.

Perhaps you would be kind enough to respond to this forced-choice instrument in order that we will be able to include your suggestions for "best" use in the nation-wide summary of results.

Thank you for your cooperation.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

MJW/bw

FORCED-CHOICE QUESTIONNAIRE (Q.#2) TO PROFESSORS WHO HAVE USED SIMULATION

BEST WAYS OF USING SIMULATION IN TRAINING SCHOOL ADMINISTRATORS

The following categories of purposes have been suggested as appropriate reasons for the use of simulation by present users of simulation materials in their response to a survey regarding how simulation is now being used.

In the light of your present knowledge of simulation, which purpose do you now feel would be best achieved through using simulation? Rank your selections on the following list. Limit your choices to the two purposes in Section I you feel best served, ranking them 1 and 2. Then rank the two purposes which you feel simulation serves least well 7 and 8, 8 being the least desired purpose. Even if you feel that all of these purposes are well-served by simulation, or that none are, you are to rank the top two, and the bottom two, only.

Section I General Purposes (see Section IV for specific areas of emphasis within these general purposes.)

____A. RECRUITMENT: To locate persons with potential administrative talent, and to encourage their entrance into the profession by introducing them to the satisfactions which can be realized when one is an instrument in the successful solution of school problems.

____B. GUIDANCE and SCREENING: To provide professors with data about atudent performance under a variety of circumstances in order to be able to counsel them about their future in school administration and/or screen unacceptable candidates from graduate programs in administration.

____C. SELF-EVALUATION: To provide administrators (or trainees) with an opportunity for self-analysis of their administrative behavior and administrative style by comparing their responses to those of others and/or by scoring their responses and comparing them to research results, e.g., the DCS study.

____D. ILLUSTRATIVE: To illustrate the variety of materials (handbooks, laws, forms, etc.) with which an administrator works and to provide illustrative samples of them and their method of use.

____E. INVOLVEMENT: To give prospective administrators a realistic "feel" of the actual problems on the job, in a controlled and comparatively threat-free situation, and by this involvement, motivate them to learn more about themselves and about administrative theory and behavior.

___F. PRACTICE in SKILLS: To provide administrators (and trainees) with the opportunity to improve various administrative skills (see Section IV) in a variety of problem situations, with the chance to discuss their actions and hypotheses with their peers and authorities in several fields, to re-evaluate their responses and again practice the skill with alternate actions, with little fear of failure.

___G. CONCEPTUAL LEARNING: To help students of administration understand, and use in "realistic" practice, the basic concepts and theories of administration.

___H. RESEARCH: To formulate and test hypotheses about various aspects of administrative behavior in a controlled "realistic" situation. (i.e., relationship between administrative style and training, or between teacher evaluation and administrative experience.)

___ OTHER:

Section II Rank the following categories of material of simulation in the order of their importance to the purposes you selected as #1 and #2 above. Omit ranking those categories which you feel are not important to the purposes you selected. Suggest other materials which you feel should be developed to implement your purposes.

Purpose #1	MATERIAL CATEGORY	Purpose #2
______	Background Materials (brief-selected items)	______
______	Background Materials (Total, complex interrelated factors)	______
______	In-Baskets (several in full)	______
______	In-Baskets (brief selected items only)	______
______	Taped Problems	______
______	Kinescopes	______
______	Other Cases (film or written)	______
______	Role Plays	______

Others you feel should be developed to reach your purposes, describe briefly:

Section III Methods: Rank the following categories of methods for use in connection with the purposes you have selected as #1 and #2, above, in order to get maximum results. Omit ranking any categories you feel are not important in achieving the purposes you have selected. Suggest other methods you feel would be important in implementing your purposes.

Purpose #1	METHOD CATEGORY	Purpose #2
________	Cognitive In-put: Lecture	________
________	Cognitive In-put: Reading Assignment	________
________	Cognitive In-Put: Film and Tape	________
________	Discussion: Large Group	________
________	Discussion: Small Group	________
________	Student Assignment: Group, Individual	________
________	Role Playing	________
________	Problem Solving (In-Baskets)	________

Other methods you feel should be utilized in achieving these purposes:

Section IV Specific Areas (Areas of emphasis in connection with General Purposes D, E, F, G and H in Section I, above.) From the following list select the areas you feel are most appropriately taught by the use of simulation. Rank the top two, #1 and #2, and the bottom two, #11 and #12 as above.

____a. Decision-making

____b. Communication

____c. Staff Personnel and Teacher Supervision

____d. Group Dynamics and Human Relations

____e. Leadership Theory

____f. School-Community Relations

____g. Perception and Administration

____h. Sociological Aspects of Staff

____i. Sociological Aspects of Community

____j. Scheduling of Work and Time

____k. The Administrative Personality

____l. The Instructional Program

Other:

In addition to your responses to sections II and III, are there any other methods and materials you feel appropriate to the Specific Areas you have selected for emphasis above? Describe briefly here.

Section V Time Allotment and Format For the purposes, methods and materials cited above, to achieve maximum results, what would be the best arrangement of time for the simulation experience? Rank in order of your preference, 1 to 5.

____10 to 20 hours . . . Short workshop, specifically focused on limited objectives

____20 to 30 hours . . . Short workshop, specifically focused on limited objectives

____40 to 60 hours . . . Longer workshop, with many interactive elements and objectives

____more than 60 hours . Long workshop, with many interactive elements and objectives

____As part of a Regular Class sequence (Circle one in both a and b to indicate your preferred format within a regular class sequence.)

a. Number of meetings: 5 - 10 - 15 - 20 - 25 - 30
b. Length of class meetings: 1 - 1½ - 2 - 2½ - 3 hours

Section VI Participants What type of participants do you feel would benefit most from the simulation experience you have described above? Rank in order of your preference 1 to 5.

____1. Trainees, graduate students with no administrative experience

____2. Neophytes, persons just beginning their administrative experience

____3. Experienced administrators, three or more years of experience

____4. Mixed groups, experienced and inexperienced

____5. Any and/or all types (it doesn't make much difference)

Section VII What is the maximum number of participants that you feel can be included to achieve the best results?

____In biggest group or lecture ____In discussions

Section VIII On how many different occasions have you used simulation? (a 6-day workshop would be once.) ________

Name of Respondent ______________________________

Address ______________________________

WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208
PHONE MUrray 3-7561

COLLEGE OF EDUCATION

LETTER SENT TO PROFESSORS REQUESTING EVALUATION BY PARTICIPANTS OR LISTS OF PARTICIPANTS

In addition to all the responses you have already been asked to make with regard to your experience with using simulation, there is one last (I hope!) request. My advisors feel that since we lack rigorous objective evaluation of the use of simulation that it would be most helpful to the study to have at least a sampling of participant reaction to their experiences. If you have some type of post-workshop written reaction by the participants, I would be grateful for a copy of the summary. If not, perhaps you would send me the names and addresses of the participants so that I might send a sample of them a brief opinionnaire to get their present reactions to their experience. Needless to say, I would furnish you with a summary of the results of both your participants, and those in other workshops.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

WICHITA STATE UNIVERSITY
WICHITA, KANSAS 67208
PHONE MUrray 3-7561
COLLEGE OF EDUCATION

LETTER TO ACCOMPANY Q. #3 OPINIONNAIRE
TO SIMULATION PARTICIPANTS

Dear Colleague:

You were a participant in a simulation workshop for educational administration at ____________________ during____________________. Your reactions to your experiences may be helpful in making improvements in future use of the simulation technique.

It is not necessary to sign your name to this instrument. Answer each question as specifically as you can. Comments about limitations often can provide more leads to improvement than can vague compliments. Specific suggestions about what was valuable and how, and what should be changed and why, are most desired.

Thank you for your assistance.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

OPINIONNAIRE (Q.#3) SENT TO PARTICIPANTS IN SIMULATION EXPERIENCES

REACTIONS TO PARTICIPATION IN ADMINISTRATIVE SIMULATION

Answer the first three questions by placing a check on the place on each line which represents your response to the question. Answer the next three as specifically as possible. Feel free to use the back of either page if you need more room for your reply.

1. Rank your participation in simulation in terms of its personal value to you.

1	2	3	4
Not Helpful at all	Of little Help	Somewhat Helpful	Extremely Helpful

2. Compared to other educational experiences in administrative training that you have had, how would you rank this experience for you?

1	2	3	4	5
Least Helpful of all	Not as Helpful as most	Neutral, about the same as most others	Better than most, but not the best	Most Helpful of administrative training

3. At what point in administrative training programs, do you feel an extended (more than a day or two) simulation experience should come?

1	2	3	4
First, before any other administrative course work	Early in the sequence but after some regular classes	Late in the sequence after most course work is completed	After certification or employment as an administrator (In-Service training)

4. What activities in the workshop were least helpful (or even of negative value) for you? Should these be changed and improved, or merely dropped entirely? Why?

5. What two or three activities of the workshop were most helpful to you, and why?

6. What, if anything, have you done differently because of your simulation experience? Please be specific. Include any activity, large or small, which you feel you've tried due to some motivation or knowledge resulting from the simulation workshop.

DO NOT SIGN YOUR NAME, but please DO place a check in the proper blanks to correctly identify your background.

7. Sex: M__F__ 8. Age Group: 25&under___26-35___36-45___46&over___

9. Years of Teaching experience prior to simulation workshop. (Do not count years of joint teacher-administrative experience as teaching.)

None___1 to 3 yrs.___4 to 6 yrs.___7 to 9 yrs.___10 yrs. & over___

10. Years of Administrative experience prior to simulation workshop. (Count years of joint teacher-administrative experience as administration.)

None___1 or 2 yrs.___3 to 6 yrs.___7 yrs. & over___

11. Number of credit hours you had earned in administration courses prior to the workshop. (Include courses in administration, supervision, curriculum and allied fields, but do not include courses in foundations of education, psychology, etc.)

0-6 hrs.___7-12 hrs.___13-24 hrs.___25-36 hrs.___37-48 hrs.___
Over 48 hrs.___

WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208
PHONE MUrray 3-7561

COLLEGE OF EDUCATION

LETTER TO ACCOMPANY SURVEY ON GAMING

According to Dr. John Forbes, Director of Institutional Studies and Development at New Mexico State University, your school has purchased a "School Management Personnel Game" from their Academic Tool Planning Center.

Please return the enclosed card with the requested information regarding your use of the above personnel game.

I am completing a doctoral project at Teachers College, Columbia University, on "The Use of Simulation in the Teaching of School Administration" and this information is necessary for me to gather data for my project.

Please return the card regardless of your answers. Thank you for your assistance.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

POST CARD INCLUDED WITH LETTER NUMBER SEVEN

Name of School ______________________

We (have)
(have not) used the School Personnel Management Game.

We plan to use the game ______________
(date)

The person who directed (or will direct) the use of the game is:

Name ______________________

Address ______________________

WICHITA STATE UNIVERSITY

WICHITA, KANSAS 67208
PHONE MUrray 3-7561

COLLEGE OF EDUCATION

LETTER TO ACCOMPANY Q. #4 OPEN-ENDED QUESTIONNAIRE ON GAMING

I am writing to ask for information relative to your experiences in using management games in the teaching of school administrators. Your name has been given to me as one who has used these materials.

I am working on a project under the direction of Dr. Norton Beach of Teachers College, Columbia University, entitled "The Use of Simulation in Teaching School Administration." The study has been designed to contribute to the sharing of knowledge about the use of simulated materials, and hence, to more effective use of simulation by other professors of school administration.

The purposes of the questionnaire are to determine the range of purposes, materials and teaching methods used in connection with simulation in the training of school administrators, and make some initial steps in the evaluation of the success of each. It is hoped that from this study can grow a definitive study of the precise times, manner and personnel for the most effective use of simulation at various stages in the training of school administrators.

If you have a prepared, detailed description of your experiences in the use of simulation, or of evaluating its effectiveness, I would greatly appreciate receiving a copy in addition to your answers to the questionnaire. In general, if any of the questions could be more fully answered by a copy of some material which you already have in duplicated form, I would be most grateful if you would enclose a copy of each when you return the questionnaire.

Thank you very much for your assistance. I will be happy to send you a copy of the results of this survey if you are interested.

Sincerely,

Morris J. Weinberger
Assistant Professor of Education

OPEN-ENDED QUESTIONNAIRE (Q.#4) TO PROFESSORS WHO HAVE USED GAMING

A SURVEY OF THE METHODS AND MATERIALS OF SIMULATION IN THE TEACHING OF SCHOOL ADMINISTRATION

(Gaming: The School Personnel Management Game)

Name of University____
Professor in charge of
simulation experience____________________________________

Address____

1. Purposes and objectives of past gaming experiences. (If these were not formally delineated in advance, merely describe intended purposes briefly.)

2. Please state your own overall opinion of the value of the use of The School Personnel Management Game in teaching school administration. (Especially include comments upon what you felt were the most effective methods and materials used in connection with the game and why, as well as the limitations and weaknesses you found.)

3. Format within which game was used. (Indicate the total number of hours spent on the game, including group work.)

Regular Classes ______________

Seminars ____________________

Other--describe fully:

____

____

Workshops: One week __________

Two weeks __________

Three weeks ________

4. Participants in game (Indicate level and experience by filling in the letter (s) of the appropriate experience level in the blanks of the corresponding administrative level.)

Level

Elementary ______________
Secondary ______________
Central Office __________
Mixed Levels ___________
Non-school personnel _____

Experience

A. Administrative Trainees (no admin. exp.)
B. Experienced Administrators
C. Mixed experienced and inexperienced Admin.

5. Teaching methods used in connection with the game. (Check all used.)

Lecture ________________
Guest Lecture ___________
Discussion:
  a) total group __________
  b) large sub-groups ______
  c) small (8 or less) sub-groups ______
  d) brainstorming ________
Role Playing:
  pre-structured _________
  unstructured __________
Audio-Visual Aids:
  Films ________________
  Filmstrip _____________
  Slides ______________
  Tape recordings ________
  Overhead projector ______
  Opaque projector _______
  Other (specify) ________

Team Problem session __________
  (average length of session_____)
Individual study periods ________

Visits to actual school situations
  (field problems) __________

Written assignments:
  In sessions______________
  Outside sessions __________

Evaluation methods used:
  Objective tests __________
  Essay exams ____________
  Opinion Responses Only, reactions to game ________

Other methods used during game (describe briefly).

6. Materials used during the game in connection with it and its objectives. (List titles and sources)

   Films:

   Cases:

   Other (Describe)

7. If you have had an opportunity to observe the strengths and limitations of the Whitman School Simulation, please compare it to those of the School Personnel Management Game.

page 5

8. During the time you used the game, did you make any major changes in, or additions to, the scoring procedures or weights or background material as sent to you in the School Personnel Management Game? If yes, briefly describe in what areas and why.

9. Were grades assigned for participation in the gaming experience? Yes___ No___. If "Yes," please describe the criteria used to determine the grades.

10. Have you developed any supplementary materials or problems of your own to use in connection with the School Personnel Management Game? Please describe briefly, or enclose a copy of them. Especially describe the variety of materials used. (Use other side of any or all sheets if needed.)

11. If anyone at your institution is doing, or has done, a study of any of the aspects of the use of games in training administrators, please list their names and addresses.

APPENDIX C

DETAILED DESCRIPTIONS OF PURPOSES FOR WHICH SIMULATION HAS BEEN USED[1]

CONCEPTUAL LEARNING: To help students of administration understand, and use in "realistic" practice, the basic concepts and theories of administration.

PRACTICE IN SKILLS: To provide administrators (and trainees) with the opportunity to improve various administrative skills in a variety of problem situations with the chance to discuss their actions and hypotheses with their peers and authorities in several fields, to re-evaluate their responses, and again practice the skill with alternate actions--with little fear of failure.

INVOLVEMENT: To give prospective administrators a realistic "feel" of the actual problems on the job, in a controlled and comparatively threat-free situation, and by this involvement, motivate them to learn more about themselves and about administrative theory and behavior.

ILLUSTRATIVE: To illustrate the variety of materials (handbooks, laws, forms, etc.) with which an administrator works, to provide illustrative samples of them and their method of use, and to provide an overview of what administration looks like.

SELF-EVALUATION: To provide administrators (or trainees) with an opportunity for self-analysis of their administrative behavior and administrative style by comparing their responses to those of others and/or by scoring their responses and comparing them to research results, e.g., the DCS study.

COMMON BACKGROUND: To provide an objective, realistic problem-setting common to all for focus of discussions.

RESEARCH: To formulate and test hypotheses about various aspects of administrative behavior in a controlled "realistic" situation.

RECRUITMENT, GUIDANCE, AND SCREENING: To locate persons with potential administrative talent and encourage their entrance into the profession, and to provide professors with data about their performance under a variety of circumstances in order to be able to counsel them about their future in school administration and/or screen unacceptable candidates from graduate programs in administration.

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[1] From the complete list of purposes found in Table III, page 81.

APPENDIX D

RESPONSES ABOUT STRENGTHS OF SIMULATION, QUOTED FROM QUESTIONNAIRE #1

The dynamic aspects of the problems seem to absorb the student's interest. The fact that students get so thoroughly involved is one of the unusual events of a workshop. . . . After the first In-Basket I have a whole ward of insecure and psychotic patients. When the workshop ends, the shock still remains. They go away learned but not so complacent about their jobs.

I believe the use of simulation to be a most powerful approach to unfamiliar and threatening learning situations. (It is) probably less powerful in the case of ordinary and familiar situations.

Simulated materials are invaluable in the training of administrators. . . . The introspective quality of the material when used properly is of enormous value to administrators in service, but the greatest value is the opportunity that simulation provides for relating administrative theory and research to practice.

I believe that it was the first time that some of the administrators enrolled had ever considered their professional behavior within any type of conceptual framework.

I found the materials useful particularly because of their flexibility.

Discussion of the responses was quite lively but never degenerated into an ego-defense level. . . . It seems to me one of the chief values of simulation is that it can, better than any other device I know, provide a realistic situation in which men are forced to make decisions of the type they must make on the firing line.

I feel the value of simulated school administration is enormous. The reality training overcomes most of the shortcomings of lectures, discussions, or demonstration.

Simulation is an excellent vehicle for almost anything you want to do, but you cannot do everything with it at any one time. I can think of no better way for the student to get practice at supplying a variety of conceptual frameworks to administrative problems with the guidance of an instructor.

It works better than anything else I have ever done to create the readiness on the part of the student for using conceptual frameworks from the social-behavioral sciences in administration.

I feel strongly that these materials are valuable for use in instruction in administration. One can see them develop insight . . . a kind of data that are hard to report, support, validate or quantify. I feel that such data are nevertheless valid for the observer. A sensitive teacher can feel, sense, detect when his students are truly learning. I observed this as I used these materials. What I can't know, of course, is how lasting such insight affected the behavior of the students involved . . . beyond question, the most effective materials and activity were the In-Basket situations and the students analyses of them.

We have been very well pleased with the entire program. It has been gratifying to note how quickly and thoroughly each student identifies himself with the simulated situation and discusses problems accordingly . . . this seems to be the best substitute for an intern program we have been able to provide.

The fact that these simulated materials require participants to assume the role of principal, adding tremendous amounts of motivation and causes them to be directly involved in the activity. The learnings which occur have an emotional as well as an intellectual impact.

The situation permits the student to think, yet there is no definite answer . . . it requires the bringing of all the knowledge that the student has to the situation at hand.

Extremely valuable used as a vehicle to carry the course content and to give the students an opportunity to test and develop their administrative decision-making ability. The Jefferson situation provides a series of common experiences and problems which can be utilized in so many ways that it staggers the imagination.

Simulation is one of the valuable types of case study. It comes closer to realism than some, because it is based on role play. When used flexibly as part of a total pre-service program it has great impact.

Overall opinion: This is the best current method of teaching in the field. It comes close to an actual experience, it has taken instruction in school administration out of the humdrum too often characteristic of graduate classes.

It is my belief that the materials for simulation represent the most valuable and limitless resource now available in the preparation of school administrators. My greatest regret is that we cannot use the materials and the method more fully.

Its greatest value lies in the manner in which the ego-involvement of participants helps to break their complacent shell and open them to new ideas.

RESPONSES ABOUT WEAKNESSES AND LIMITATIONS OF SIMULATION, QUOTED FROM QUESTIONNAIRE #1.

Very time consuming for value received. There can be side effects, which give a lasting effect which the professor does not intend.

The material is not useful for a course that is scheduled one or two times weekly. It loses its value when people have to withdraw and re-enter the simulated situation for long periods.

I am not sure about the benefits although students rate it high. I wonder if In-Basketry doesn't tend to give the wrong impression of the decision-making function--that it is a matter of making decisions instead of establishing structure and machinery for getting good decisions made.

It places a much greater burden for preparation upon the instructor, most critically the instructor must know enough different conceptual systems applicable to a wide range of administrative problems, unless he is to bluff his way through seminar or workshop. Such a bluff will be easily seen by the student.

Less valuable as a medium for teaching in the areas of leadership and general policy-making than in teaching the technical managerial aspects of administration.

Tremendous paperwork load requires plenty of manpower. Some baskets are too long. Need more flexibility in breaking up the baskets.

I do have a very clear fear however, that our field is taking simulation too seriously. Its limitations are scarcely discussed. In my view, the student could very well go away from our workshops with enthusiasm and not a great deal more. I doubt that the student is in a position knowledgibly to evaluate the extent to which the professor capitalized on the opportunities of the situation. I would hypothesize that two equally enthusiastic workshop groups could differ most markedly as to the adequacy with which they have been exposed to important conceptual materials.

We are still at an early stage in developing powerful simulation experiences. Too much over-claiming now will hurt the spread of use of simulation.

The materials are of too limited a scope to be used as the major part of a course in secondary school administration. Some of the most important aspects of administration are not covered, and they tend to re-enforce the image of the administrator as a manager, a manipulator, and a public relations man.

PARTICIPANT REACTIONS TO SIMULATION AS REPORTED IN QUOTES BY PROFESSORS

Who really knows? Students report, after a workshop, how much they really were impressed. What did they learn? (They say) theory, social systems, etc., but whether they become better administrators is another thing. . . . At each of my workshops I have asked participants to write to me of instances that occur to them on the job that relate to experiences in the simulation. A few have done so. If permitted to generalize from so few cases, then I would say that simulation might considerably improve the participant's future behavior.

Responses have all been enthusiastically favorable. Most have been exceptionally enthusiastic. But as to actual consequences in the field, I have no evidence.

The participants felt the experience was of greater practical application than textbook courses. Role playing was the most exciting session. . . .

I've received about two dozen letters from participants 2-3 years later . . . of a highly complimentary nature, and given the length of time, I suspect very significant. However, since no carefully constructed design for feed-back was used, I have no way of knowing how far to trust the data. . . . Anonymous testimonial reports at the end of each workshop and seminar . . . have all run high positive . . . even compared with the usual testimonial of this type. But, again, I do not think this data is solid enough to use. . . .

Student responses--highly favorable. Instructor--still mixed, although positively inclined.

Students rate it high. I am not sure about the benefits. . . . (In-Baskets) lend an element of reality to the campus learning situation. Students react favorably, probably for this reason.

All of the students speaking to me and to my colleagues have been enthusiastic and positive.

Many students have told me how much the workshops meant to them. . . . It was the first time that some of the administrators enrolled had ever considered their professional behavior within any type of conceptual framework.

We were well satisfied with our first attempt--students were likewise enthusiastic and were unanimous in believing that all prospective administrators should be exposed to the materials.

Students (made) comments to the effect that back on the job they found problems to be similar--the dimensions of performance to be useful.

We solicited responses from some groups a number of months after the experience. Their subjective reactions affirmed that the experience had affected their behavior, but we have no way of determining the validity (of the data). Superintendents whose principals attended, in several instances, told me that they had noticed distinct change in the behavior of principals who had attended. . . .

In addition to the favorable reaction from participants both immediately after the workshop and after seven months, in two instances teachers in my classes commented about changed patterns of behavior by their principals (especially staff meetings and bulletins)--without knowing that I had directed a workshop they had attended. One in particular commented about a more understanding and approachable attitude.

I asked each participant to evaluate the use of Jefferson materials. A summary of their evaluations would indicate that they considered the In-Baskets valuable (and) interesting, that the range of opinion expressed and action indicated by class members amazed them and that discussion tended to broaden their points of view.

(Note that professors reported no negative feed-back from participants.)

APPENDIX E

TABLE XXX

BACKGROUND OF PARTICIPANTS IN SIMULATION EXPERIENCES WHO RESPONDED TO OPINIONNAIRE, TABULATED BY SCHOOL

Background of Participants	Schools					
	I[a] (89)[c]	II[b] (52)[c]	III[b] (23)[c]	IV[b] (22)[c]	V[a] (7)[c]	VI[b] (5)[c]
Sex of Participants						
Male	81	44	14	18	6	4
Female	6	7	8	2	1	1
Age of Participants						
25 and Under	6	..	..	..	..	..
26-35	56	10	4	8	3	1
36-45	20	20	11	9	4	3
46 and Over	7	22	8	5	..	1
Teaching Experience Prior to Simulation						
None	1	..	1	..	..	..
1-3 Years	28	12	4	1	2	..
4-6 Years	34	10	5	7	3	2
7-9 Years	11	10	3	3	1	1
10 Years and More . .	15	20	10	11	1	2
Administrative Experience Prior to Simulation						
None	51	5	2	1	3	1
1-2 Years	17	6	2	7	2	1
3-6 Years	14	9	4	8	2	1
7 Years and More . . .	7	32	15	6	..	2
Credit Hours in Administration Prior to Simulation Experience						
0-6 Hours	32	1	..	1	1	1
7-12 Hours	24	6	3	2	1	..
13-24 Hours	24	15	1	7	1	2
25-36 Hours	8	17	6	5	3	..
37-48 Hours	..	5	2	4	1	2
Over 48 Hours	1	7	11	2	..	..

[a] Used simulation in regular class.

[b] Used simulation in workshop.

[c] Number from school responding to opinionnaire.

TABLE XXXI

SIMULATION APPRAISAL BY PARTICIPANTS AS REPORTED IN OPINIONNAIRE, TABULATED BY SCHOOL

Appraisals	Schools					
	I[a] (89)[c]	II[b] (52)[c]	III[b] (23)[c]	IV[b] (22)[c]	V[a] (7)[c]	VI[b] (5)[c]
The Value of Simulation						
Extremely Helpful	47	31	8	10	2	3
Somewhat Helpful	38	20	14	12	5	2
Of Little Help	3	1	1	..	..	..
Not Helpful at All	1	..	..	..	..	..
Value Compared to Other Administrative Training						
Most Helpful of All	46	27	6	9	3	4
Better than Most, but not the Best	32	23	14	12	2	1
About the Same as Others	8	2	1	1	1	..
Not as Helpful as Most	1	..	2	..	..	..
Least Helpful of All	1	..	..	..	..	..
Place in Training Sequences Recommended						
First, Before any Other Administrative Training	8	..	..	..	1	..
Early in the Sequence, After Some Administrative Training	37	4	3	5	3	1
Late in the Sequence, After Most Course Work	38	22	9	6	1	4
After Certification as Administrator, or Employment as Administrator	6	23	11	11	2	..

[a] Used simulation in regular class.

[b] Used simulation in workshop.

[c] Number from school responding to opinionnaire.

TABLE XXXII

MOST HELPFUL SIMULATION EXPERIENCES AS MENTIONED BY PARTICIPANTS IN RESPONSE TO OPINIONNAIRE, TABULATED BY SCHOOL

Most Helpful Simulation Experiences	Schools					
	I[a] (89)[c]	II[b] (52)[c]	III[b] (23)[c]	IV[b] (22)[c]	V[a] (7)[c]	VI[b] (5)[c]
Student Involvement in Discussion Comparing In-Basket Responses	54	36	23	16	4	5
Working on In-Basket Materials (or Specific Problem Items)	46	23	8	8	3	2
Units on the Administrative Process, including Formal Presentations	5	36	22	13	6	1
Professor Outstanding; Promoted Discussion; Presentation Good	10	12	3	7	1	..
Background Materials (especially Degree of Detail)	11	3	..	2	..	..
Films	7	5	..	..	..	..
Role Playing	..	9	2	1	..	..
Informality, Arrangements; and Free Time Discussion	..	6	1	1	2	..
Small Specific Technical Details	4	2	..	1	1	..
Guest Lecturer Excellent	..	7	..	..	..	..
Learning about Self (Analysis of Personality and Administrative Behavior)	3	2	..	1	..	..
Research Emphasis	..	..	3	1	..	..
Individual Personal Critique by Professor	4	..	..	..	..	..
Broadened Horizons of what Administrator Needs to Know	1	..	2	..	1	..
Brainstorming Sessions	..	3	..	..	..	..

[a] Used simulation in regular class.

[b] Used simulation in workshop

[c] Number from school responding to opinionnaire.

TABLE XXXIII

LEAST HELPFUL SIMULATION EXPERIENCES AS MENTIONED BY PARTICIPANTS IN RESPONSE TO OPINIONNAIRE, TABULATED BY SCHOOL

Least Helpful Simulation Experiences	Schools					
	I[a] (89)[c]	II[b] (52)[c]	III[b] (23)[c]	IV[b] (22)[c]	V[a] (7)[c]	VI[b] (5)[c]
All Valuable, Nothing Weak or Negative	22	16	3	11	4	1
Manner of Doing In-Baskets Poor	10	9	4	1	4	..
Problems not Familiar (Same Administrative Level or Own School), Therefore, not Real	20	6	1	..	..	..
Not Enough Time to do Group Discussions to Follow-up Problems	7	3	7	3	..	..
Specific Individual Mechanical Assignments did not Correlate with Simulation	9	2	4	..	1	3
Poor Quality Films	1	1	9	1	1	1
Lectures Poor; Boring, Over Heads of Students	2	5	3	..	..	2
Too Many Questions Left Unanswered	6	1	2	1	1	..
Few (e.g., Grad. Asst., Group Leaders) Dominating, Interfering in Discussion	1	..	1	9	..	..
Instructor Poor; Didn't get Students Involved; Long Involved Explanations	3	..	5	..	1	..
In-Basket Grading: One Correct Answer not Possible, Screening on This Basis Wrong	9	..	..	..	..	..
Factual Test	4	..	..	..	..	..
Unit on Supervision and Teacher Evaluation	..	1	..	2	..	1
Physical Arrangements Poor; Lack of Space; Conference too Long	..	..	..	3	..	..
Visit to School Ordinary	..	..	..	2	..	..
Too Much Time in Individual Conference with Professor	..	..	2	..	..	..
Role Playing done Poorly	..	..	2	..	..	..
Participants did not Play Principal Role	..	2	..	..	..	..
Personality Test	1	..	..	..	..	..

[a] Used simulation in regular class.

[b] Used simulation in workshop.

[c] Number from school responding to opinionnaire.

TABLE XXXIV

THINGS PARTICIPANTS HAVE DONE DIFFERENTLY AS A RESULT OF SIMULATION EXPERIENCE AS MENTIONED BY PARTICIPANTS IN RESPONSE TO OPINIONNAIRE, TABULATED BY SCHOOL

Actions	Schools					
	I[a] (89)[c]	II[b] (52)[c]	III[b] (23)[c]	IV[b] (22)[c]	V[a] (7)[c]	VI[b] (5)[c]
Better Decision-maker; Consider more Consequences of Actions, Alternatives, Gathered More Information; More Time	20	16	12	3	1	2
Better Staff Inter-relationships and Group Interaction (Better Perception	17	15	6	9	1	..
More Aware of Administrator's Entire Job and Expectations of Him; Preparing Self for Broad View	10	6	1	5	..	..
Improve Administrator-Faculty Communication (Weekly Newsletter) .	4	11	3	3	..	..
Analysis of Spheres of Influence and Community (PTA) Leadership	4	8	3	5	..	..
Small, Specific, Mechanical and Technical Details of Routine Nature	3	10	2	3	..	..
Better Teacher Supervision and Evaluation	4	4	2	5	..	1
Organize School Day/Year Better (Daily Routines, etc.)	5	4	1	4	1	..
Better Understanding and Implementation of Leadership Function .	3	2	4	1	3	..
Better Faculty Meetings and Use of Faculty Council	2	8	1	2	..	..
Better Analysis of "Silent Communications"; Especially of Self	2	..	2	..	..	..
More Autocratic in Dealing with Staff	1	..	2	..	..	..

[a] Used simulation in regular class.

[b] Used simulation in workshop

[c] Number from school responding to opinionnaire.